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ABSTRACT

Recommendations of the George Washington University Commission for the Year 2000 are presented, along with a description of the mission of the university. The Commission studied the missions and programs of the university and made 18 major recommendations concerning: building a university of quality and distinctive aspirations concerning international programs, the study of government, and the use of computers. Recommendations concern: building research capability, curricula and teaching, communications, the performing arts, university libraries, the Division of Continuing Education and Summer Sessions, faculty development, student financial aid and recruitment, student life, facilities, and university planning. Specific curricula and teaching concerns include general education, writing and mathematics, honors, and interschool majors. In general, the Commission's proposals are designed to achieve excellence in fulfilling the university's purposes: liberal education, education for leadership, preprofessional and professional education, and research. Appended is a summary of activities of the Commission. The use of the Commission's report for accreditation self-study is also addressed, along with information about the accreditation review and steering committee members. (SW)

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MEMORANDUM OF TRANSMITTAL

May 16, 1985

To: Dr. Lloyd H. Elliott, President
George Washington University

The final report of the Commission for the Year 2000 contains the Commission's recommendations on the steps that should be taken to achieve the University's goals for increasing quality in all programs, schools, and colleges. This report could not have been completed without the sustained interest and commitment of many members of the University community. The Commission benefited greatly from the comments received during all phases of its work and wishes to thank all those who gave time, attention, and encouragement to this project.

The members of the Commission appreciated the opportunity to consider and recommend plans for the University's development. The Commission meetings provided the opportunity for members of this University community with different backgrounds and perspectives to deliberate seriously on issues that affect the entire University. The work was exciting, and it was a privilege to have been a part of this process.

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INTRODUCTION

Preamble

This Preamble sets forth the values and perspectives of a university. It describes concepts which guided the Commission in its deliberations on the long-range development of the University. These concepts are presented briefly here to provide a context for the Commission's report and to reinforce their importance to this academic community.

The Commission recognizes that all universities share a core of defining characteristics which distinguish them from other institutions. These characteristics are more than descriptive. They arise from a set of values which are essentially altruistic and humane and which must be nurtured if universities are to maintain fidelity to their historic missions. These values draw people to academic life and sustain their commitment to a university.

Most importantly, universities are centers of trained intelligence dedicated to free inquiry. They recognize the contributions to human development made by comprehensive and rigorous critical analysis in all fields of inquiry, and they value intellectual and aesthetic creativity. They are, therefore, committed to supporting intellectual and creative activities as ends in themselves, quite apart from their utility. They are also committed to the translation of knowledge and values into the wider human community, directly in the programs of professional schools, and more broadly through the knowledge, attitudes, and skills that university graduates develop during their course of study. Such commitments support a breadth of intellectual and creative activities and bind disparate disciplines, faculties, and schools into a university.

Over the course of their historical development, universities have come to recognize that certain modes of behavior are necessary to sustain these commitments. Universities must support independent inquiry by insulating their faculty from external and internal pressures toward conformity through such mechanisms as tenure. They must also recognize that truth emerges only from the free exchange of ideas and protect the rights of individuals to freedom of expression. Universities serve themselves and society best when they support the pursuit of truth without respect to consequences.

As institutions dedicated to the pursuit of knowledge and truth in all of its forms, universities must be particularly aware of their own limitations of thought. In the last forty years, American universities have become more aware of their parochialism with respect to western culture, nation, social class, and concepts of equality, particularly with respect to race and sex. As a result, they have expanded their ideas about what should be studied and taught. Such self-criticism must be an ongoing process, and communities of scholars, through the interaction of ideas, must continually try to reach beyond the boundaries of their culture.

Universities also must forcefully acknowledge through practice the need to rise above the prejudices in society which prevent individuals from developing their full intellectual and spiritual potential. They must develop special obligations to groups whose educational opportunities have been limited by their race, sex, disability, or status as immigrants. A pluralist society draws strength from its ability to sustain an environment that nurtures equality and eradicates discrimination.

Like all major universities, George Washington University has developed its own unique identity. This identity reflects its founders' ambitions, its location in

Washington, D.C., and its response to changes in society and in the development of knowledge. The Commission members recognize that their recommendations must respect this institution's character and build upon its strengths. The history of the University not only details its growth but also suggests important missions that must be sustained and enhanced in the twenty-first century.

George Washington University: A Distinctive Mission

The mission and objectives of George Washington University have developed over 160 years.[1] New objectives have been added to other purposes as the emphasis of higher education has changed and as the University has increased in quality and stature. This evolutionary process continues today, as the University community considers its capabilities and identifies new areas of knowledge that should be studied.

As with so many early American institutions of higher education, George Washington University was founded to educate ministers in the classical and the new areas of liberal learning that were then emerging. Luther Rice, the College's founder, was the principal leader of the movement to broaden the education of Baptist ministers. Ministers of the General Baptist Convention believed that greater attention should be paid to improving the minds of youth who were entering the ministry. "Within the last fifty years, by the diffusion of knowledge and attention to liberal science the state of society has become considerably elevated. It is certainly desirable the information of the minister of the sanctuary should increase in an equal proportion." (Kayser, p. 23) Liberal education continues to be of fundamental importance to the University.

Luther Rice, who was instrumental in securing support and financing, left another important legacy to the University. He was an activist on behalf of voluntary efforts in support of the private sector, efforts which are today important to the vitality of private institutions and thus, indirectly, to George Washington University.

The University's present purposes also evolved from ideas and values proposed by the nation's first leaders. George Washington University has come to accept as part of its mission the goals that President Washington believed important to a university located in the nation's capital. George Washington had urged the creation of a great American university where "youth of fortune and talents from all parts [of the country] might be sent for the completion of their education in all branches of polite literature; — in arts and sciences — in acquiring knowledge in the principles of Politics and good Government. . . ." (Kayser, p. 14)

In 1821, President James Monroe signed the act of Congress that gave Columbian College its first charter. President Monroe wrote:

> The establishment of this institution within the federal district, in the presence of Congress, and of all the departments of government, will secure to the young men who may be educated in it many important advantages; among which, the opportunity which it will afford them of hearing the debates in Congress, and in the Supreme Court. . . . With these peculiar advantages, this institution if it receives hereafter, the proper encouragement, cannot fail to be eminently useful to the nation. (Kayser, p. 34)

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[1] Kayser, Elmer Louis. *Bricks Without Straw. The Evolution of George Washington University.* New York: Appleton-Century-Crofts, 1970. The following discussion is based on Dr. Kayser's history of the University.

The University grew as the nation's capital increasingly became an important center. Before the Civil War, Washington, D.C. was a small city, and Columbian College, too, was small, graduating only about 300 students during its first forty years. After the War, the city grew quickly, and its new populations sought greater opportunities for learning. Growing numbers of civil servants pursued degrees, thus establishing the University's important role in the education of part-time students.

Columbian College now began to grow. In 1865, it reopened the Law School, which had been founded earlier and had been forced to close for financial reasons. The Medical Department, one of the College's original departments, came into its own as the Medical School. In 1873, the name of the College was changed to Columbian University, and the Graduate School was established. These developments were in keeping with the university movement in higher education, which emphasized the importance of research, expanded areas of study, and fostered the development of academic disciplines. In 1884, the University added the School of Engineering.

The ceremony marking the institution's change from college to university status illustrates the importance of the University's location to its development. At the celebration, University President James C. Welling talked about the university movement and its relationship to Washington, D.C. as a great educational center. Present at the occasion were President Ulysses S. Grant, members of his cabinet, the diplomatic corps, senior military officers, and eminent scholars.

The University's proximity to the national government enriched the faculty. The University drew upon professionals in the government to provide instruction, particularly in the sciences. Important resources for study were acquired when Congress authorized universities' access to government libraries in 1892.

By the twentieth century, the University had become an institution of some consequence. Between 1871 and 1893, the student body had increased from 326 to 902; the faculty had more than doubled in size; and the University offered courses of study in a number of fields on both the undergraduate and graduate levels. In 1904, Columbian University was renamed the George Washington University as part of an agreement with the George Washington Memorial Association.

Dr. Cloyd H. Marvin, who served as the University's president from 1927 to 1959, is an important figure in the University's history. Dr. Marvin expanded the physical plant of the campus and initiated changes that enabled academic development. Under his leadership, a stronger core of full-time faculty was built, and the University began to receive recognition for its academic programs. It was placed on the Association of American Universities' list of approved universities in 1930, and chapters of honorary associations were established.

Since 1965, under Dr. Lloyd H. Elliott's leadership, the development of academic programs and campus facilities has accelerated, earning the University a place among the ranks of the best universities in the United States. Also during this period, the University began to expand its international role, enrolling students from other countries in all its programs. It also developed new programs to serve the District of Columbia and its residents. Among many initiatives, it founded the Educational Opportunity Program in 1969 to provide opportunities for education for minority and other residents of the District who would otherwise not be financially able to attend the University.

In this and other ways, the University has made progress in the struggle for equity by making education available to individuals whose opportunities are other-

wise limited by historical barriers. The University has increased its efforts to recruit minority students and make provision for their support. It has eliminated many barriers to the full participation of women in all of the University's activities. Campus buildings were modified and services developed to provide access to disabled students. As an essential component of its vision of the future, the University must continue and expand its commitment to equity.

Washington, D.C.: A Special Relationship

A major theme in the University's history is its relationship to its Washington, D.C. location. University programs have benefited in varied and unique ways from the resources available in this unusual city. In turn, the University could not have become the major urban institution it is today unless it also served the Washington, D.C. community. Since the 1960s, especially, the University has been very involved in providing educational opportunities and community services to District residents.

The University has several programs to increase educational opportunities for District residents. In addition to the Educational Opportunity Program mentioned previously, the High Skip program, begun in 1981, permits District high school students with demonstrated potential to take courses tuition-free. More than 60 students have taken these courses for credit since the program began. District residents, both young and old, participate in creative writing workshops taught by visiting playwrights, novelists, or poets. Under the terms of the Jenny McKean Moore Fund, which supports this program, these workshops are free to District residents. The Washington Saturday College utilizes University facilities for community educational programs on Saturday mornings throughout the year, and many faculty members have taught courses and lectured in the Saturday College programs since its founding.

The University also works in partnership with the District of Columbia Public Schools to improve instruction and provide program enrichment. For a number of years, the University was the home of the Workshop for Careers in the Arts, which ultimately grew into the Duke Ellington High School for the Performing Arts. The University was also involved in helping to develop the curriculum for the District's new high school for allied health professions, which is housed at Eastern High School. Allied health faculty have taught in-service courses and serve on the school's Business/Advisory Council. The University was a founding member of the National Capital Area Writing Project, an ambitious partnership program between the departments of English in area universities and the teachers of English in local secondary and elementary schools. More recently, the University has joined efforts with the Federal City Council to strengthen the teaching of math and science in the District of Columbia Public Schools. In addition to a program of student and faculty volunteer tutors, the University provides tuition-free enrollment in math and science courses for selected school teachers.

Through research, University faculty advance knowledge about the District and contribute to current efforts to address District concerns. The Center for Washington Area Studies supports teaching and research on the city and region; publishes monographs and bibliographies; holds conferences; and supports the collection of materials related to Washington, D.C. The Urban Affairs Proseminar offered by the Department of Political Science, which generally focuses on an issue of current concern to policymakers in the District or surrounding areas, illustrates the symbiotic relationship between the University and the city. During the spring of

1984, for example, students in the proseminar analyzed the District's neighborhood crime watch program, and their findings resulted in a published report that received widespread attention.

George Washington University students have a remarkable record of community service in both voluntary programs and in credit courses. In the Service-Learning Program alone, over 1,500 undergraduates have spent two days a week for an entire semester in pre-professional internships in legal services organizations, schools and day care centers, social service agencies, arts organizations, and health clinics. The University has been recognized by national organizations for its success in combining experiential education with a traditional liberal education curriculum.

The University's faculty and students also provide needed community services. Through the Community Legal Clinics, citizens with low incomes can obtain legal services from law students. Under the supervision of law faculty or practicing attorneys, these services are provided in such fields as small business law, immigration law, and legal aid to the elderly. District residents have available a wide range of health services through the Medical Center, and individual medical faculty provide services throughout the community. The Medical Center provides in-hospital health care services for patients, well beyond the amount required by federal law. In addition, the Center sponsors health fairs which offer free screening services to any interested member of the community.

These are only a sample of the programs and activities involving the District of Columbia that receive direct University support.

The University Today

In 1985, the University has a distinctive character. This character is a product of its history and its commitment to the values of a university. These are reflected in its purposes and programs today:

Liberal education, based in the arts and sciences, has been, and will continue to be, at the heart of university life. It provides the basis for understanding and interpreting both the history and processes of intellectual thought and human experience. The arts and sciences teach how theories are developed from concrete observations, how rigorous analyses are conducted, and how perceptions of reality are formed. With a liberal education, students have the broad, firm foundation necessary to pursue specialized areas of knowledge.

Education for leadership has been, and will increasingly become, a central purpose of the University. The University was founded to provide a liberal education to those who would assume leadership as Baptist ministers. Throughout its history, and as social conditions have changed, the University has developed programs in areas where new leadership has been required and will continue to do so in the future.

Pre-professional and professional education are the educational programs most explicitly linked to the University's goal of training the nation's leaders in government, law, education, engineering, business, and medicine. The University is committed to insuring that the quality of its students and of their education remains at the highest level. As new specializations emerge, the University will consider whether it can play a useful part in training in these new areas and, if it can, will offer students education of the highest caliber.

Washington, D.C. is a major metropolitan area, the nation's capital, and an international city. The distinctive quality of the learning experience at the

University comes from its dynamic interaction with these three aspects of the city. Because of its location and history, the University is able to provide a wealth of educational resources and a complex, vital mix of students and faculty. The University's location presents students and faculty with opportunities for involvement with government agencies, foreign countries, international organizations, public policy organizations, scientific facilities, and private corporations. Further, the University's location has meant an ongoing commitment to the part-time student, who may also be a full-time professional.

Research is central to this University's mission. Research enables investigators to achieve a broader and deeper understanding of the physical, social, and moral universe. Although the nature of research may vary significantly by discipline, all research has in common one goal — the creation and advancement of knowledge. Commitment to that goal helps the University to sustain its vitality.

These are the most salient features of the University. In planning for the future, the Commission for the Year 2000 has looked to how these aspects of the University may be further improved, either by strengthening current programs or by pursuing new initiatives that will enhance the University's standing in the higher education community.

Building From Strength

By all standard measures, George Washington University has become a mature university. Its financial base is strong and growing; its facilities are sufficient for most current and future needs; its faculty and programs are increasing in quality. Because of these strengths, the University can develop plans to become even stronger and more prestigious. The twenty-first century, now only fifteen years away, is the University's target date for completing substantial improvements in the quality of current programs and for fully implementing new initiatives to assure that the University will participate in the discovery and advancement of new knowledge.

After years of careful planning, George Washington University has achieved the financial security that will allow it to meet its future institutional objectives. Its financial strength is based on three factors: its investment program, gifts, and enrollment.

Overall, the University's endowment is valued at more than $135 million, including the market value of its real estate investments, $76.3 million. Only 40 colleges and universities in the nation have larger endowments. This financial base will continue to grow over the next five years as other investments mature.

The University owes its current fiscal stability to earlier decisions to base its financial future on local commercial real estate. As a result of those decisions, the University has been able to acquire the land and construct the facilities needed for future campus growth and, in addition, earn a significant return on its investments.

The University undertook its first major real estate development in 1967, when it built the Joseph Henry Building at 21st Street and Pennsylvania Avenue, N.W. The University purchased the land with its own funds, but it obtained mortgage funding for the construction of the building on the basis of its twenty-year lease to the National Academy of Sciences. The net annual income from this property is just over $100,000 per year.

Based on the success of that effort, the University launched similar real estate projects. The Thomas Edison Building, leased to the Potomac Electric Power Company in 1973, also produces rental income for the University. In 1981, the University sold campus land to the World Bank, but retained the option of buying it back in forty years with building improvements, at a fair price. This sale produced capital

for other investments, particularly the 2122 Pennsylvania Avenue and 2000 Pennsylvania Avenue development projects, and promises to provide income in the future.

The income from these and other real estate investments is significant and should continue to grow. In 1983-84, total income from investment properties was $2.5 million. When the mortgage from the Joseph Henry Building is retired in 1987-88, the original lease will expire, and the University's rental income will reflect current market rates. At that time, estimated annual income from all investment properties will be $9.5 million, and by 1992-93, should approach $15 million.

These investments helped put the University on a sounder financial footing. A portion of this added income will be set aside for future investment, increasing the general endowment fund and thus assuring continued resources for the future. The remainder will be available for program development and continued support for the general operating budget in order to keep tuition at a reasonable level. To date, real estate investment income has been used to support major capital construction financing; in effect, "one building builds another."

Contributions to the University have increased substantially over the past few years. In 1983-84, the University received more than $10 million in gifts, a new record. The University can expect to maintain this growth trend as it continues to improve the quality of its programs. Strong institutions attract donor support, and the potential for prominence in the University's academic and research programs portends well for future donor support.

Together with the University's success in real estate investments and gifts, there has also been a slow but steady pattern of growth in other endowment income. The increase in the value of the University's endowment between the mid-1950s, when it was $35 million, and today demonstrates the success of efforts to provide a strong financial base.

Virtually all independent colleges and universities depend heavily on tuition income. At this University, tuition and fees are the major source of funds for the operating budget (67%), which supports instructional and research activity. Given this dependence, stable enrollments are a significant factor in maintaining financial viability.

With some yearly variations, enrollment levels have increased at the University over the past several years. In the fall of 1984, there was a thirty-four percent increase in freshman enrollment. Due to smaller pools of high school seniors over the next few years, freshman enrollment may decrease slightly but is expected to increase again in the early 1990's.

The trend toward greater full-time enrollment in post-baccalaureate programs contributes to enrollment stability, but the demand for part-time graduate study in the Washington, D.C. area is also one of the University's greatest assets. This demand is less affected by demographic considerations, and if the University can continue to offer quality programs that attract part-time students, the prospects for sustaining the necessary level of income from tuition revenues are excellent. The opportunities the University provides for part-time study have been important in the past, and they will continue to be important in the future.

The University's building program over the last fifteen years has provided facilities necessary for the current development of academic and research programs. These facilities provide a firm basis for future development. Academic building construction and renovation have resulted in 2.2 million square feet of new, usable space. The addition of Ross Hall was essential to the continued development of the

School of Medicine and Health Sciences. The new Lerner Hall and the renovated Stockton Hall gave the National Law Center the modern facilities needed for work toward greater distinction. There will continue to be a need for facilities development, but in the last fifteen years the University has clearly developed the physical campus required for a great urban university.

The importance of the University's growing financial strength and the physical development of the campus to its long-term plans cannot be underestimated. Without these foundations, the University could not embark on long-range programs to raise its relative standing academically. With these assets, the University can begin a new phase of building program quality, knowing that it has the resources to make these programs work.

Ultimately, the quality of any university is measured by its ability to meet the highest intellectual standards for the generation of new knowledge and the education of its students. The University has come a considerable way in this respect in the past few years. Increasing numbers of faculty members are recognized nationally in their fields. In particular, the appointment of University Professors focuses attention on the University's growing emphasis on intellectual distinction.

Sponsored research activity is also an indicator of this growing recognition. The School of Engineering and Applied Science, for example, has dramatically increased its level of sponsored research activity in all departments in the recent past. Funding has gone to programs in operations research, engineering administration, electrical engineering and computer science, and civil, mechanical, and environmental engineering. The Joint Institute for Advancement of Flight Sciences is particularly noteworthy because it enables collaborative use of the extensive facilities for research and teaching at the National Aeronautics and Space Administration's installation in Langley, Virginia. In the School of Medicine, outstanding programs have brought national and international recognition to the University. Research areas of exceptionable quality include: thymosin and the body's immune responses; lipid metabolism relating to nutrition and a range of vascular disorders; radiation effects on cellular function relating to cancer and to aging; and electromagnetic stimulation of nerve regeneration.

Sponsored research has also been important in the arts and sciences. Activities include projects on the economics of human resources, biostatistics, the psychology of perception, chemical analysis of surfaces, and nuclear and particle physics. Through its involvement in the Southeastern Universities Research Association, the University has participated in the planning for a continuous electron beam accelerator facility which will be used for research in nuclear and particle physics.

George Washington University has also been successful in obtaining funds for public policy research on domestic and international issues. Beyond the extensive policy research done by individual faculty members, University institutes and programs are noteworthy in this respect. Among these are the Institute for Sino-Soviet Studies, the Program of Policy Studies in Science and Technology, the Graduate School's Program in Public Policy, and the Center for Social Policy Studies.

Funds from sponsored research totaled $24 million in fiscal 1984. While, again, this is only one measure of research activity, it is evidence of growing recognition of the faculty's research capability.

The University has clearly directed its energies over the past two decades toward building overall quality and developing strengths in particular areas. This should continue, on an even more ambitious scale. The University has the capability

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of further developing overall quality, and as new areas of knowledge become more important, the University has the means, the expertise, and the will to develop new initiatives that will enhance its national reputation even more.

Potential Barriers to Development

The preceding section documents the University's potential for significant achievements. This potential makes it all the more important for the Commission to focus some attention on problems that could slow the pace of the University's development overall.

The Commission encountered in some parts of the University a disparity between the community's estimation of its academic programs and the reality of academic strength. A recent survey conducted for the University found, for example, that faculty rated the strength of their own departments above that of their major competitors. However, they rated the overall strength of the University lower then they did their departments.

The origins of this problem go back to a period when the University was in fact a very different kind of institution. Its internal image at that time accorded more with reality. The University has changed considerably but perceptions, once in place, are very difficult to change. In addition, neither faculty nor students have sufficient information about the University's achievements and developing quality. The University lacks traditions to serve as vehicles to publicize its achievements, and communications on campus are not sufficient to counter the negative internal image that some faculty and students have.

Certainly, self-criticism is the precursor to improvement, but the Commission concludes there is excessive self-criticism at the University which can be detrimental. A weak internal image poses a serious problem for future development because it is communicated to the public. Further, it is much more difficult to attract outside financial support and students and faculty of quality if the institution's strengths are not understood by its own constituencies.

Vice President Roderick S. French noted the problem of image in his address to the Faculty Assembly in the fall of 1984. He recalled Jean-Paul Sartre's observation that while we may not always be free in life to choose our situation, we are always free to choose within that situation, and he urged faculty to earn a new image by "ancient and straightforward means, namely, by improving the quality of our teaching, increasing the originality of our research, and raising the calibre of the intellectual life of the university community."

Ironically, the University's image may be stronger externally than it is internally. Commission members heard from many people outside of the community: "George Washington University is better than it thinks it is."

A second area of concern is decentralization. The George Washington University's growth as a complex institution has been marked by the nearly complete independence of its schools and colleges in setting their own directions for development. This autonomy has made the professional schools particularly strong and effective in their ability to attract faculty and students of quality and to engage fruitfully in teaching and research.

At this stage in the history of the University, however, the Commission observes that decentralization presents some major drawbacks to further development. Decentralization makes it difficult to develop coordinated plans to improve the quality of the University overall and to institute new programs that may require

the involvement of more than one school or college. More specifically, decentralization inhibits sharing of information across disciplinary lines and limits interactions among faculty and programs. The schools and colleges have few or no mechanisms or incentives to share resources or to benefit from each other's strengths. In some instances, the present decentralized structure discourages the full use of faculty talent and restricts student choice. Undergraduates, who seek identification more with the University than with a particular school or college, may be particularly affected. They should be encouraged to explore the broadest range of options and to interact with students and faculty from all schools and colleges prior to selecting a particular field of study.

Further, the decentralized organization means that communication between the central administration and the schools and colleges often does not occur readily. Lack of communication among units makes it difficult to coordinate decisions concerning academic programs, budget, and facilities.

Finally, decentralization in part accounts for the faculty's failure to appreciate the strengths of departments other than their own. They simply are not informed about or involved with other sections of the University. As one observer commented, "The University's parts are greater than its whole."

The Commission believes that the issues cited here require the University's serious attention. In the following sections it proposes several recommendations that will, if implemented, significantly remedy these problems.

BUILDING A UNIVERSITY OF QUALITY

By any standard of academic excellence, the University has made substantial progress in building institutional quality over the past fifteen years. It has developed strengths in most categories by which quality is judged: the intellectual attainments of the faculty, the breadth and depth of curricular offerings, accreditation of programs, endowments and expenditures, and library holdings. Building upon this base of achievement the University can now realistically aspire to the highest levels of academic excellence.

In each school and college, several steps are essential to reaching this goal for the year 2000 and beyond. The University must continue to build academic quality in all its current academic departments. To this end, it must develop further its capabilities in research and scholarly activity. It must continue to study questions of curriculum and teaching so that content and technique represent the best available knowledge within each discipline and in higher education generally. Further, the University must insure that its programs are sensitive to the needs of those who wish to study here. Ways must be found to develop an academic community in which the commitment to the activity of learning and to the intellectual growth of students is visibly present in the total life of the campus. Finally, in looking to the future, the Commission does not envision a different institution, but rather a stronger one, with missions and strengths that distinguish it from any other university in this city and in the nation. Recommendations which speak to these needs follow in this section of the report and in the section entitled "Distinctive Aspirations."

Building Research Capability

The advancement of knowledge in its many forms is a fundamental role of a university and, accordingly, strength in scholarship is a precondition for excellence. At this University, a continuing commitment to scholarship and research, of the kind that builds the scholarly reputation of the institution, is essential to achieving greater distinction. Further, a strong research orientation will become more and more important to attracting faculty and students of high quality. As it continues to strengthen its commitment to research, the University must also acknowledge that the kind of research, scholarship, and professional activity necessary to build the stature of the University will vary according to the requirements of the discipline.

As noted in an earlier section of this report, the amount and quality of research conducted at the University has increased substantially in recent years. In some fields, it has attracted attention nationally and contributed positively to the University's reputation as a research institution. The University has recently made new efforts to provide more support to ongoing research activities and to encourage the development of new research efforts. Specifically, President Elliott asked the University Research Committee in January 1984 to investigate what the University should do to foster research activity. That committee presented its report to Dr. Elliott on May 10, 1985. Independent of that study, the Vice President for Academic Affairs has initiated a program of summer research awards for junior faculty members. The Office of Sponsored Research has increased support services for faculty interested in applying for grants and contracts. The Development Office has created positions which may help to increase institutional support from corporate and foundation sources. These efforts may develop relationships that will also result in greater sup-

port for research from these sources.

The University Research Committee's recommendations address in detail the specific steps necessary to improve the faculty's ability to conduct research. The Commission offers the following recommendations to emphasize the importance of research, and in support of the essential work of the University Research Committee.

RECOMMENDATION: The University should establish plans and policies that will enable it to develop into a research institution of the first rank.

To achieve excellence, research must receive greater emphasis across the entire University. It is most important that the University's research priorities be reflected in decisions concerning hiring, tenure, promotion, and compensation of faculty. To build the research-oriented faculty that will meet the University's objectives, research productivity must be required for faculty hiring, tenure, and promotion in every department and school in the University. In addition, research activities should be weighted significantly in determining salary increases.

The University should also accelerate the process of building a research-oriented faculty by hiring new scholars with established records at the levels of professor and associate professor and by creating additional University Professorships. These new faculty should be hired to further the research capability of departments and areas of study with existing research strength. Such faculty should also be hired as role models in departments with a substantial number of junior faculty and with a high demand for doctoral study. The Commission recommends this strategy because these new faculty members can have the most impact on the University's research capability when they are hired in departments where their interests complement existing research activity or where they can serve to stimulate new research. Conversely, the Commission recognizes that there may be certain situations in which a department might need to hire a more recently trained scholar. A department, for example, might need to recruit an individual trained in a new area of the discipline.

The Commission also recognizes that many areas of inquiry no longer fall within the traditional boundaries of departments and schools. Consequently, interdisciplinary programs have become increasingly important. To encourage the continued development of these programs, the Commission recommends that schools and colleges give increased attention to the possibilities for joint appointments when hiring new faculty.

It is clear that not all departments and schools can progress at the same rate toward building research capability. The nature of scholarly activity varies among disciplines and fields as do the demands placed on departments for other activities. Furthermore, many faculty members were hired with the expectation that teaching was much more important to the University than research. Such factors will affect the needs and possibilities different academic units have for increasing research activity and thus decisions concerning where resources for research are best allocated. These decisions will be made in the academic units, as discussed later in the section on planning.

The University must also be prepared to provide additional direct support for research. Over time, substantial University funding will be required to meet goals for research. In some fields, start-up funds for research projects are necessary to the development of productive research. Also, where outside funding is not available to support significant projects, the University must be able to commit its own funds for such purposes. Course release for faculty engaged in productive research and support

for travel to scholarly meetings and conferences are additional important means of encouraging faculty research. Productive researchers should more routinely carry a two-course teaching load each semester in recognition that research constitutes a sizeable portion of their total work effort. Course release is also important for new faculty members just beginning to build research programs.

Increased support for graduate assistants is also essential to developing research capability. Current levels of funding are inadequate to attract high quality graduate students in the numbers that are required.

In some fields, lack of adequate facilities is currently a barrier to research. Particularly in the sciences and engineering, facilities improvement is essential to developing existing research capability. (See section on Facilities.)

In discussions with Commission members, some faculty members expressed the need for greater University support in seeking outside sponsors for research. Several of the schools are active in seeking funds, but these faculty members felt that a more concerted University-wide effort was required. The University has begun to provide more support. As mentioned previously, the Office of Sponsored Research has recently initiated activities to provide more assistance to faculty members in obtaining sponsors for research, and the Development Office's efforts may also result in more outside funding for faculty research projects.

Because sponsored research funds may now come through more than one University office, there should be a central office to coordinate outside funding support for research. The Commission recommends that the Office of Sponsored Research should continue to serve as the focal point for such activity and coordinate the University's submissions to funding sources.

While these activities are promising, it is too early to assess their impact. After one or two years, these new services should be evaluated to determine whether or not the University should take additional steps to seek research support. With the expected decline of federal support for research over the next several years, universities must locate new sources of private support to maintain quality research programs, and this University must take the steps necessary to be competitive in this search for funds.

The Commission believes that effective teaching and research are both essential to the mission of the University. Productive research and scholarship inform and enrich teaching and are indispensable to the creative function of the University. Therefore, the increased emphasis on research proposed in these recommendations continues to link research to academic programs. As long as this relationship between research and teaching is sustained, the Commission believes that research can invigorate teaching, involving both students as well as their professors in the excitement of discovery.

Curricula and Teaching

Institutional excellence requires curricula that reflect the best of the knowledge and technique within each discipline and provide students with the understandings and skills of liberally educated citizens. Curriculum development is one of the faculty's most important responsibilities.

The Commission did not undertake a full review of curricula. The number and variety of academic programs offered make informed review by any single body impossible. It should be noted, however, that most schools and colleges in the University regularly engage in some form of program evaluation. Some have also

been planning to make curricular or other adaptations that are indicated by changing patterns of interest and enrollment within the schools and by trends that appear to emphasize the importance of new curricular areas.

These activities by the schools have proceeded independently of the work of the Commission. The School of Government and Business Administration, for example, through Project 21, has projected trends that have implications for its academic programs in the future and has identified new emphases that should be developed to meet the needs of students in the twenty-first century. The National Law Center completed a study of trends in legal education and has developed plans that will be important to its future development. The Graduate School of Arts and Sciences has an ongoing process of program review which has proven to be effective in redirecting academic programs and research emphases. Columbian College began conducting program reviews in conjunction with the Graduate School's reviews this past year. The School of Medicine and Health Sciences is continually involved in planning efforts to keep educational programs for medical students and residents up-to-date. The School of Education and Human Development has identified new emphases, particularly in international education, that could become majors programs in the future. The School of Engineering and Applied Science has a particularly challenging task in revising its educational programs to keep abreast of very rapid changes in technology. The School has developed new interdepartmental programs to reflect developments in the study of high technology. It is also facing the need to revise over fifty courses in light of CAD/CAM (computer-aided design/computer-aided manufacture) capability the School acquired through a grant from IBM. These activities of the schools are essential in developing the quality of the curriculum. (See section on Planning.) Apart from the plans of the schools, there are some curricular issues that deserve special consideration. These issues were brought to the Commission's attention by deans, faculty members, and students.

General education

A need for changes in the general education curriculum for undergraduates at the University was one of the most important issues brought to the Commission. Currently, there is much criticism of undergraduate education nationally. The National Institute of Education's Study Group on the Conditions of Excellence in American Higher Education, for example, found that "The realities of student learning, curricular coherence, . . . and academic standards no longer measure up to our expectations." Most recently, the Association of American Colleges' Project on Redefining the Meaning and Purpose of the Baccalaureate Degree issued its report which concluded that the value of the baccalaureate degree has seriously declined.

At this University, several factors have operated to de-emphasize the importance of general education, i.e., the framework of courses which undergraduate students must take to have a sound, broad foundation in the major branches of knowledge. The purpose of this broad foundation is to give students the intellectual tools they need to deal with personal, social, and political issues throughout their lives.

Decentralization of responsibility for the undergraduate curriculum in the schools and the departments is probably the most important cause of the de-emphasis of general education. The only common aspects of undergraduate education now mandated are the composition and distribution requirements. This trend must be reversed.

RECOMMENDATION: The University should review the undergraduate program of general education in the near future.

Since Columbian College is the unit with the most responsibility for general education, the Dean of the College, in conjunction with the deans of the other schools, should initiate this review. Among the many important educational issues that must be considered, this review should examine how the development of lifelong habits of physical fitness might be an important element in a general education. The University must be prepared to support necessary changes in undergraduate general education with additional faculty resources, particularly for Columbian College, and with release time for faculty who are responsible for curriculum development.

Beyond its importance for general education, the strength of Columbian College is essential to the entire University. Columbian College is the cornerstone of the University. Its faculty and programs provide the theoretical underpinning of the work in the professional schools, and the College's faculty constitute the majority of the faculty in the Graduate School of Arts and Sciences and the School of Public and International Affairs. Without strength in the College, the programs in the other schools would be less attractive to faculty and students of quality. Therefore, it is in the interest of all the other schools and colleges to promote a strong program in the arts and sciences.

Writing

The teaching of writing is one of the most important components of a general education program. Writing is a process that helps develop and refine critical thought in virtually every area of human endeavor. It is also a skill which is essential to achievement in the world outside of the University.

Students need to write regularly to develop the habits and skills of effective writers. To insure that students learn how to write well, the University should introduce composition requirements that would extend responsibility for the teaching of writing to each department of the University. In addition to the introductory courses, which would continue to be taught by the Department of English, students should be required to take courses that emphasize writing and that are related to their field. These courses should be designated by their major departments as intensive writing courses. To assist faculty in teaching these intensive writing courses, the Department of English's composition faculty should offer workshops on how to encourage meaningful student writing.

The Writing Laboratory, which aids students at each stage in the writing process from initial conception through revision, is an important complement to this proposed writing program. The Writing Laboratory should be expanded to support the increased emphasis on writing for undergraduates and to aid graduate students with specific writing problems.

The Department of English should also explore how best to utilize the newest tools in the teaching of writing. It is essential to introduce word processing into the teaching of composition. Word processors facilitate the rewriting of compositions necessary to the development of effective writing skills. The Commission also believes that students will take computer use for granted by the year 2000, making other methods outdated. The Department of English should also examine the uses of computer-assisted instruction. While not a substitute for writing courses, computer-assisted instruction might be useful in helping students correct basic composition errors.

The Department of English would need some support to introduce such changes. Expansion of the Writing Laboratory, mentioned previously, and additional microcomputers would be required. The Department would also need a new full-time faculty member experienced in the uses of computers in teaching composition. This faculty member would both teach courses and aid in the development of computer applications.

Finally, as part of a new University-wide emphasis on writing, composition should be made more central to the activities of the English Department. Most composition courses are taught by part-time faculty and graduate teaching assistants. Approximately 15 part-time faculty do not return each year. As a result, there is very little stability in the composition faculty, and the writing program loses continuity and emphasis. Greater focus on writing within the English Department itself is essential to insuring the success of this expanded emphasis on composition.

Mathematics

Because of its fundamental importance to many fields of study, the Department of Mathematics should be strengthened to provide students with a mathematics education of quality. Undergraduates at this University should possess minimal competency in mathematics. All students, even those whose area of study does not require skill in mathematics, need to be conversant with mathematical concepts to participate effectively in society. Students in some fields, such as the sciences, engineering, and some of the social sciences, have specialized needs in mathematics. The Department of Mathematics, in consultation with the faculty in these disciplines, should develop appropriate courses to serve these students whenever possible.

In addition, the Department needs better instructional tools. It should have a mathematics laboratory, equipped with appropriate hardware and software, which could be used for remedial as well as regular instruction.

Honors

In developing recommendations to improve the quality of the University's intellectual life, the Commission considered various types of honors programs for gifted undergraduate students. The Commission did not favor an honors college or a complete honors curriculum since arrangements of that type tend to segregate the strongest students from the general intellectual life of the university and are very costly to operate.

However, the Commission does recommend that a variety of honors experiences be introduced into undergraduate life in Columbian College, the School of Education and Human Development, the School of Government and Business Administration, and the School of Public and International Affairs. The following are possible approaches to addressing the needs of gifted students: senior honors theses in departments and programs where they are appropriate; special departmental honors courses or seminars; the development of new 700 series courses, including where possible the participation of the honors students in planning these courses; special discussion sections for honors students in regular courses; all-University courses to bring together honors students from the several schools; and residence hall courses to encourage more out-of-class interaction among honors students.

Those students who have completed a specified number of honors experiences with distinction might receive acknowledgement of their achievement at graduation.

The University should appoint a coordinator from the faculty to work part time under the Vice President for Academic Affairs to develop and administer the honors program. In addition to coordinating academic activities, this faculty member would develop special events for honors students, including opportunities to meet and discuss topics with such visitors to the city as diplomats, scholars, and artists. The coordinator would also be active in encouraging these students to pursue prestigious graduate fellowships.

In planning this effort, the University should pay particular attention to the successful recruitment of superior students. Currently, the University can offer a maximum of 40 Freshman Honor Scholarships which provide up to one half of tuition per year, renewable each year. On average, 20 entering freshmen hold Honors Scholarships. In addition, the School of Engineering and Applied Science offers 25 Engineering Honor Scholarships to entering freshmen and transfer students. Approximately 18 engineering students accept these scholarships each year.

Clearly, policies governing financial aid should be examined to determine how they might better aid in the recruitment of talented students. In addition, the University should re-examine programs that combine undergraduate admission with admission to one of the professional schools and should publicize the availability of these programs. The summmer program for high school students is another way to draw attention to the University's interest in talented students. To relate this program more directly to degree-granting programs, the Commission recommends that it be transferred to Columbian College from the Division of Continuing Education and Summer Sessions.

Inter-school majors

In terms of other curricular issues, students are most interested in the possibilities for inter-school double majors and minors. This interest applies primarily to students who wish to concentrate in the arts and sciences and still undertake some program of study that they see as more job-related. Some undergraduate students outside of Columbian College are also interested in opportunities for study beyond the sophomore year in areas in the arts and sciences. These students seek breadth in their education, and the Commission supports their interest. Columbian College and the other schools enrolling undergraduate students should examine the possibilities for developing coherent inter-school programs of study.

Communications

In considering possible new emphases for the University, the Commission examined fields that have potential for development because of the University's location in Washington, D.C. The Commission identified communications as one such area.

The Washington, D.C. area is increasingly a center for both the mass communications and the telecommunications/common carrier industries. Major firms with offices or headquarters here include: each of the broadcast networks, the C-SPAN cable network, the Corporation for Public Broadcasting, the Public Broadcasting System, National Public Radio, AT&T, Intelsat, Comsat, GTE, and many newspapers. There are approximately 3,700 reporters in the area. National trade associations, most of which have offices in this city, are concerned with one or more aspects of mass communications or telecommunications. They produce periodicals, newsletters, films, and radio and television advertisements. On the local level, there

are numerous FM and AM radio stations, and both network- affiliated and independent television stations.

Washington, D.C. is also an important center for policy issues in the field of communications and telecommunications. In this city, federal regulatory policy for mass communications and telecommunications policy is established; important trade and foreign relations aspects of communications issues are discussed and decided. More than 50 law firms specialize in communications and telecommunications law.

The University is already active in the study of telecommunications through three of its graduate programs. The School of Engineering and Applied Science offers a graduate program concentration in telecommunications and computers that focuses on the development of engineering aspects of telecommunications technology and on the use of computers in the implementation of telecommunications networks. The School of Government and Business Administration offers a field in telecommunications management within the master's program in public administration. The Graduate School of Arts and Sciences offers a master's degree in public policy with a concentration in telecommunications policy. To help support these programs, the Gelman Library has an extensive collection that includes Federal Communications Commission documents, cable television franchise applications, AT&T divestiture trial transcripts, and books and periodicals.

These telecommunications programs are now being coordinated through the Office of the Vice President for Academic Affairs. The Commission believes that this coordinating process will give the telecommunications programs the University support necessary for their complete development.

As a new initiative, the University should actively develop a major, financially viable program in communications, i.e., the activity and medium by which individuals and organizations exchange ideas and information. This is a feasible objective and of potential benefit to the University and the community, given the significance of the field in Washington, D.C. and its growing importance in the future. Three other local universities offer programs in communications, but the Commission believes the University can be competitive in attracting students. Enrollment trends in existing undergraduate programs demonstrate that programs oriented toward communications attract undergraduate majors. Communications programs at Boston, Syracuse, and Temple Universities, which have been identified as major competitors for students, have strong enrollments and, in fact, turn away qualified students who are interested in studying in the communications area. The University can also attract graduate students to programs in communications. The growing local communications industry is, and should continue to be, an important source of such students.

RECOMMENDATION: The University should develop a major new program emphasis in the field of communications.

The University currently offers several different programs in the communications area. At the baccalaureate level, there are four major fields: radio/television and speech communication, both offered by the Department of Communication and Theatre; journalism; and political communication, an interdisciplinary major supported by the Departments of Political Science, Journalism, and Communication and Theatre. The University has made a commitment to providing additional faculty members and, most importantly, new facilities for radio/television which will enable that program to accommodate approximately 350 to 400 students. The radio/television program also has plans to develop graduate programs in the future.

The University already has substantial communications resources for these programs in the Gelman Library's television news video archive and in several of its faculty members who are nationally known for their research and publications on media questions.

The curriculum of the Department of Journalism is presently focused on print news. The Radio and Television undergraduate curriculum emphasizes a comprehensive approach to examining the range of political, social, economic, and cultural issues raised by the media. Expanded emphases on the undergraduate level might include courses in aesthetics and criticism, ethics, history, and international communications, as well as advanced-level courses in production, corporate structure, and management. On the graduate level, the faculty plan to develop a program which focuses on how media institutions influence politics, society, economics, and culture. It will include courses in research methods, law and policy, the philosophy of communications, cultural history, and broadcast journalism.

The Commission strongly recommends that the undergraduate programs in communications continue their present commitment to teaching communications in the context of the liberal arts and sciences as well as to providing professional training, as distinct from vocational training. At the graduate level, the program should emphasize those aspects of communications with most significance to the Washington, D.C. area: policy; news, both print and broadcast; and the study of the impact of the media on government.

To build the new emphasis in communications, the Commission suggests the following process: The Vice President for Academic Affairs should create a University advisory committee on communications to define the eventual outlines of the expanded program and the additional faculty specialties that will be required to develop it. This committee should include: the Vice President for Academic Affairs as chair, the deans of Columbian College and the Graduate School of Arts and Sciences, and representatives from the appropriate departments.

It would be appropriate to ask representatives from the media industries to advise this committee as it develops the communications program. Their inclusion in the process would extend existing ties, developed through internship programs and faculty consultation, to the media, thereby increasing industry-university cooperation in meeting shared needs and providing services.

Once the committee has made substantial progress in defining the program, the University should hire a director to establish the new program in communications and to determine which current faculty members' interests would qualify them to be part of the new program. The director and the faculty of the program would then recruit and recommend new faculty based on the program's needs, as defined by the director, the contributing faculty, and the deans. Also, the University will need to begin making plans to provide the facilities that the program will require.

By the year 2000, the Commission envisions that this new communications program could have up to twenty full-time faculty members and 750 students. After the communications program is well underway, the University should seek a donor who is interested in providing substantial support and after whom the program or school might be named. At this point, it may become appropriate for the graduate programs in telecommunications to become part of the new program or school.

The Performing Arts

The Commission first reviewed the programs in performing arts to determine

whether the University should make a major commitment to develop a school for the performing arts. It seemed that the burgeoning of the city's cultural life might justify such a step and provide some special advantages to a school for the performing arts located in Foggy Bottom and adjacent to the Kennedy Center. The Commission concluded, however, that the development of a school is not in the University's best interest at the present time. There is insufficient student demand for the professional training such a school would offer, and there are two other schools in the area with performing arts programs that enjoy excellent reputations. Instead, the role of the arts at this University should continue to be to foster, through education and performance, an atmosphere of cultural balance, artistic perspective, and creative excellence.

While not recommending a major new emphasis on the arts, the Commission did conclude that the University should strengthen its performing arts programs because they are essential to a university of quality. Intellectually, they offer ways of understanding human experience that are distinct from those of any other discipline. They are also important because they contribute to the quality of University life in general.

RECOMMENDATION: The University should take steps to strengthen the position of the performing arts within the liberal arts and to enable the performing arts to play a more important role in the life of the campus.

The University offers academic programs in music, drama, and dance. The Department of Music provides courses in music history as well as courses related to music as a performing art. Drama is offered in the Department of Communication and Theatre. The dance program is located in the Department of Human Kinetics and Leisure Studies in the School of Education and Human Development. The number of students in these programs is small; approximately seventy were majoring in one of the performing arts in the fall of 1984. In addition to their academic offerings, these programs also present concerts and productions that afford opportunities for students to perform for their own enjoyment and for the enjoyment of the University and the surrounding community.

The level of University resources provided for the performing arts programs has been insufficient to enable them to occupy a position equivalent to that of the other liberal arts in the University. The University has only twelve full-time faculty members in all of the performing arts. The Commission does not envision large growth in the performing arts programs and therefore does not propose sizeable increases in faculty. However, two to three additional full-time faculty members in carefully selected areas should be provided to help make a significant difference in the quality of these programs.

In addition, the University should make more rehearsal and performance space available to the performing arts to insure quality programming in the present performing arts departments. Existing facilities are not wholly adequate for the current programs. In the short term, the University should explore the possibilities for better use of Lisner Auditorium to benefit the performing arts and the possibilities for renovation or reallocation of other spaces suitable for their use. In the long-run, the University should add appropriate performance space to insure the continuing development of these programs.

The University should provide additional financial support for productions and other activities such as symposia and master classes by visiting artists. Such activities are important to the development of student and faculty talents and demonstrate the

University's commitment to building programs of quality.

The University should also assure the availability of student talent. Part of the University's image is shaped by the performance of its students on the stage and in the concert hall. To build this image, it is just as necessary to provide scholarships to talented students in the performing arts as it is to gifted scholars and athletes. The University should provide scholarships in the performing arts programs to attract students with special abilities. Funds for even ten to twelve scholarships could make a difference in the ability of the programs to mount productions.

In addition to resources, the performing arts have had organizational problems. The three programs are now working cooperatively to advance their mutual interests, but this cooperation is a recent development. Their interests could be advanced further if the performing arts programs were reorganized. At the very least, the dance program should be transferred from the School of Education and Human Development to Columbian College. Indeed, the Commission believes that the performing arts would be best served by combining all three programs into a new Department of the Performing Arts. This reorganization offers the best possibilities for the kind of development of the performing arts that is necessary to a strong program in the liberal arts and sciences and to the quality of University life.

University Libraries

The three libraries of the University are central to academic life, providing access to information and materials and delivery of information services necessary for teaching, research, and learning. Over the past fifteen years, new or renovated facilities have been provided for all the libraries. With the conversion of the upper two floors of the Gelman to library use, the amount of space available for the libraries will generally be adequate. In addition, the University has allocated substantial resources to the libraries to enable them to build collections and offer expanded services. As a result, the Gelman Library, the Burns Law Library, and the Himmelfarb Health Sciences Library are now able to complement the growing quality of the University's academic programs and research. The Gelman Library, for example, now owns more than one million volumes, 50 percent of which have been acquired in less than ten years. Further, the University libraries have met the criteria for three of the four years required for membership in the distinguished Association of Research Libraries.

Technology is transforming libraries. New trends will require a continuing commitment of substantial resources for all three libraries. By the year 2000, what is now exceptional in technology and practice will be commonplace. Therefore, libraries must have flexibility so that they can adapt effectively and provide services to the University. The prospects for expanded library services and the opportunities they offer for students and faculty are exciting; they will also be expensive.

Computers have revolutionized the operations of libraries. Apart from bringing about greater efficiencies in library management, computers have enabled the organization and manipulation of an increasing volume of information and knowledge. Computers provide access to bibliographies and other data bases, which are important to researchers and are now widely available.

In the future, libraries will depend increasingly on computers to provide essential services to the academic community. Libraries will principally be concerned with providing access to materials and information, rather than with acquiring and maintaining collections. They will be evaluated more by the quality and range of access

they provide to materials held by other institutions than by the number of volumes in their collections. Ultimately, through networks and consortia, research libraries will be able to provide faculty and students with access to information and materials in collections worldwide.

RECOMMENDATION: The University should support the three libraries in their acquisition of the technology needed to provide access to information and material appropriate to a research university of quality and to manage increasingly complex library operations.

It is not clear how library services will be delivered in the future, but it is evident that libraries will have to take the lead in providing access to computerized information. Indeed, all three libraries have made considerable progress in computerizing systems. All three have systems which aid in library management, although additions to and replacement of outdated systems are required. The librarians of both the Gelman and Burns Libraries have expressed the need for new systems to integrate major library functions such as acquisitions, cataloging, circulations, serials control, reserves, and on-line public access. Word processing and data management capabilities are also essential. The Himmelfarb Library has progressed further in the development of its management system but still has resource needs to complete its integrated automated information system and to expand users' abilities to make inquiries and manage data.

All three libraries need to expand their capacity for data base searching and access to information and knowledge bases. User fees are charged for some of these services, but they can clearly be expected to cover only a fraction of the cost. University resources will be necessary to support the majority of the required expansion.

With these changes, the role of the academic librarian is changing as well. Clearly, librarians must know about computers and information systems and be able to educate faculty and students in how to use the systems for information retrieval and data management.

The medical and law librarians will also serve educational functions unique to their particular professional fields. The Himmelfarb Library is already consulting with and teaching courses to physicians on personal data management and information retrieval related to patient care and research. This role should expand in the future. The Burns Law Library is assisting students in developing the skills they will need to function in automated legal settings, and it may be expected to do much more in the near future.

Academic librarians will also need to develop subject matter specialties in order to serve as guides to an increasing volume of materials and specialized information retrieval systems. This will be particularly true for the Gelman Library. It is important to recognize that such specialized skills are going to be increasingly difficult to find.

In light of these changes, the University should take steps to strengthen the position of librarians. Their salaries must be competitive to attract and retain the quality the University requires. The responsibilities of librarians are somewhat different in each of the libraries, but clearly all must have opportunities to participate in decisions as they relate to their areas of expertise. Further, they should be encouraged to participate in the development of knowledge in their fields.

One additional area relating to the roles of the libraries requires discussion. Increasingly, multi-media and instructional support services provide important con-

tributions to learning, and libraries will be expected to provide access to these services. All three libraries provide some of these services. The Burns and Himmelfarb libraries provide multi-media resources to support instruction. The Himmelfarb Library provides facilities and programs for student self-instruction, and the Burns Law Library may cooperate in the future with faculty to offer computer-assisted instruction to supplement formal classroom work.

While the Gelman Library has some multi-media facilities and equipment, it cannot now meet the needs of the faculty for multi-media support. Some schools in the University provide good support, but faculty in others find it difficult, if not impossible, to obtain facilities and equipment. To remedy this problem, the Gelman Library should develop centralized media and instructional support services, particularly for the schools which do not currently have their own staff and equipment for this purpose.

The Division of Continuing Education and Summer Sessions

The Commission for the Year 2000 was asked to review the activities of the Division of Continuing Education and Summer Sessions in response to a proposal from the Division to add new functions. In the course of the review, members of the Commission consulted with Division staff and also visited Johns Hopkins University, the University of Cincinnati, Syracuse University, the Rochester Institute of Technology, the University of Rochester, and the University of Maryland to talk with administrators of continuing education programs.

Although these schools presented different models for continuing education programs (e.g., some were responsible for all evening degree programs), each had a very clear mission, which contributed to its success. The recommendations offered here are designed primarily to clarify and coalesce the functions of the Division of Continuing Education and Summer Sessions at this University.

RECOMMENDATION: The Division of Continuing Education and Summer Sessions should be reorganized to clarify its role and activities to members of the University community, and to prospective students and interested organizations outside the community.

To this end, the University should reaffirm its commitment to continuing education and to the Division's important role in the University's continuing education programs. The University should also reaffirm the Division of Continuing Education's authority as the administrative channel through which the off-campus degree work of existing degree-granting academic units will be offered, and should designate the Division as the official point of contact for other institutions or organizations seeking off-campus services from the University.

The present Division should be reorganized to permit its leadership to concentrate on its major function of continuing education. The reorganized division would consist of the Division of University Students; the Center for Continuing Education in Washington, the noncredit unit; the unit for administering off-campus credit work of the degree-granting schools and colleges; and GW Television. All other units should be transferred from the Division. A few comments concerning each of the units in the reorganized division follow.

In addition to its current function as the administrative unit responsible for non-degree students taking courses on campus, the Division of University Students should actively promote existing campus courses to potential continuing education students. There is a market for non-credit programs in the Washington area which

the Center for Continuing Education in Washington has been successful in serving. The University should encourage the Center to continue to be innovative in ways which are not competitive with campus credit programs. The administrative unit for off-campus credit work must take steps to increase its effectiveness in offering off-campus credit programs of the degree-granting schools and colleges. The unit has faced changing market conditions and mixed perceptions of its effectiveness from its University constituents. However, the Commission concludes that the University has a role in offering credit programs of the degree-granting schools and colleges off-campus, and that the Division should continue to have responsibility for the administrative aspects of these programs. GW Television should continue in the reorganized Division of Continuing Education since it provides another delivery system for off-campus degree programs and for non-credit continuing education activities. A reorganized Division should make GW Television's viability a top priority.

The University should also consider developing a unit to specialize in conferences within the Division. Washington is an attractive city for conferences, and the University should make more of an effort to capitalize on this potential. The continuing education unit should offer services to divisions already interested in arranging conferences, stimulate interest in divisions when there is opportunity, and sponsor conferences itself when appropriate.

Finally, the name of the reorganized division should be changed to the Division of Continuing Education.

Faculty Development

Faculty are a university's most important resource, the major indicator of its quality. The University should, therefore, promote activities and programs that will enhance the faculty's abilities to teach, conduct research, and advise students.

The University already supports a wide variety of faculty development activities. To support research, the University provides sabbaticals, which have recently been made available to faculty on regular non-tenure track appointments as well as to tenured faculty. Support for faculty participation in professional meetings is generally available. The University Research Committee provides funds for research projects, and some departments have recently been able to provide course release to aid new faculty in developing research programs. The University program of summer support for faculty, the Office of Sponsored Research's new efforts, and the Development Office's increasing involvement with corporations and foundations, described previously, will also contribute to faculty development.

To increase communication among the faculty and to promote interdisciplinary activity, the University provides the Dilthey Fellowships, which support scholarship, colloquia, and seminars. The new George Washington University Seminars will provide opportunities for the University's faculty to join with colleagues from other universities and research centers, federal agencies, industry, and business to explore topics beyond the boundaries of particular disciplines.

The Commission welcomes these efforts. In fact, it believes that faculty development is so important to the University's progress that it has included recommendations for faculty development activities in many sections of this report. In the section on research, the Commission has recommended that the University support faculty development through such steps as increased funding and course release to develop research projects. The section on writing recommends programs to assist faculty who wish to become more involved in improving student writing skills. In

the section on libraries, the Commission proposes that the libraries play an active role in assisting faculty to use library systems for information retrieval and to stay up-to-date in the bibliography related to their fields. In later parts of the report, there are additional recommendations for developing research in government and public policy and international affairs and for updating faculty skills in the use of computers. In addition to these important steps, the Commission makes other recommendations here to broaden the University's role in faculty development.

RECOMMENDATION: The University should initiate additional steps to support faculty development in research and teaching.

To advance the development of individual faculty members' teaching and research activities, the University should use a variety of approaches. First, deans and department chairs should encourage faculty to develop plans annually for their research, teaching, professional, and community service activities. Such planning helps faculty to think rigorously about their activities and is particularly useful to new faculty as they determine the directions of their careers. Annual report forms could be revised to encourage development of such annual plans. Each dean should have a faculty development fund to aid faculty in carrying out plans. Faculty development funds should support such activities as developing new courses, attending professional meetings, experimenting with new teaching techniques, and developing research proposals.

Second, the University should develop activities, such as short courses and seminars, to aid faculty members in acquiring new skills and keeping current in their fields. In the past, faculty have also benefited from meetings and seminars which provided opportunities to explore topics related to the improvement of teaching, interdisciplinary methods, uses of computers, and instructional applications of television.

Faculty also have other urgent needs for support. They must have adequate secretarial support to carry out their multiple responsibilities, and they need better access to audio-visual equipment for teaching. Secretarial support and word processing equipment, essential to faculty research and to teaching, is not sufficiently available in certain parts of the University. Access to audio-visual equipment is also a problem in some schools. (See section on University Libraries.) The Commission is persuaded that attention to these concerns will enhance faculty morale and productivity.

RECOMMENDATION: The University should continue to build faculty morale and take new steps to foster a sense of academic community.

To recruit and retain a faculty of quality, the University must consider the issue of faculty salaries. Faculty salaries are a matter of concern at most universities, but the problem at George Washington University is further complicated by the high cost of living in the Washington, D.C. area. The University should give continuing attention to the problem of salaries as they relate to recruitment and retention of faculty.

The need to develop academic community is also a very real issue to many faculty members. The George Washington University Seminars, noted above, promote interdisciplinary activities that encourage a sense of academic community. In addition, later Commission recommendations also encourage interdisciplinary activities. More broadly, the Commission proposes that the University should host annually a significant event to honor and introduce all faculty members new to the University. It should also encourage student/faculty interaction by providing financial

support for activities designed to increase the sense of shared involvement in an academic community.

In addition, faculty should have available new mechanisms to encourage communications from faculty members to chairs, deans, and the Vice President for Academic Affairs. The open door policy of administrators at all levels serves communication between faculty members and administrators well. However, some faculty members believe administrators should devote more attention to problems that affect the faculty's ability to carry out their responsibilities. The Commission encourages greater interaction between faculty members and administrators. Communication is essential at any time, but it is especially important now if, as expected, the University undergoes rapid change over the next fifteen years.

Student Financial Aid and Recruitment

Financial aid is among the most important issues for students at the University. Federal student financial aid is clearly declining, with no current prospect of change, and there are only limited alternatives to federal aid. Lack of financial aid will affect many students, but its impact on minority students will be particularly severe. To meet the need in the future, universities themselves will have to provide more student aid.

RECOMMENDATION: The University should provide more financial assistance in the form of loans and scholarships. To help support expanded programs, student financial aid should receive high priority in fund-raising.

The Commission also considers student recruitment an important priority on the undergraduate and graduate levels. It is essential for reasons of equity and education for the University to concern itself seriously with increasing the representation of minority students in the student body. To achieve this goal, the University will have to expand its efforts to recruit minority students. Concerning another aspect of recruitment, the Commission commends the contributions of the General Alumni Association and its constituent organizations in identifying and recruiting new students. Their recruitment programs have had very beneficial results.

Student Life

Student life is a matter of great importance to colleges and universities. Opportunities for extracurricular life, both on and off campus, are key to making an institution attractive to undergraduate students and to building a sense of identification with the University. They are also critical to furthering the intellectual development of students outside of the classroom and are, therefore, a significant part of the learning environment. Quality student services also make an important contribution to student life. Counseling, educational programs, and other assistance provided by student services complement faculty advising and provide students with the specialized expertise faculty generally cannot offer.

This University has a rich diversity of student activities. The George Washington University Student Association and the Program Board sponsor many events. The residence halls also offer both educational and social programs. The University supports National Collegiate Athletic Association Division I intercollegiate athletics for both men and women and a full program of intramural athletics. The schools offer activities particularly geared to students' developing academic and professional interests. In addition, there are 225 active student organizations.

Many students are attracted to the University because of their interests in the intellectual, cultural, and social life of the city. The location of the University provides richness and diversity to student life both on and off campus. At the same time, the urban location of the University makes it difficult to build the sense of University community which many students seek. An urban university must work hard to maintain traditions and events which encourage students' identification with the school.

This University had a very full program of all-campus activities until the late 1960s and the early 1970s, when changing student interests and campus conflict eroded that involvement. This situation has been changing recently, as evidenced by the Fall Convocation, Spring Fling, Homecoming, concerts, and receptions for graduating students. These events, which have arisen in response to student interest, appear to be meeting an important need for some students and are becoming traditions at the University.

RECOMMENDATION: The University should continue to work with student groups to provide a program of all-University activities that promote the development of a campus community.

In the section on Curricula and Teaching, the Commission suggested the need to raise the level of intellectual life through a variety of means. These must necessarily include the activities of students outside of the curriculum as well. The Commission encourages the development of more opportunities for faculty and student interaction of a nature that serves to advance students' intellectual development. There should also be more opportunities for recognition of student achievement. The Honors Convocation conducted by the Public Ceremonies Committee this past April was an important step in this direction. Other events which could be used to emphasize achievement might be ceremonies to recognize winners of University prizes and receptions for scholarship recipients. (See section on Honors.)

Although most all-campus events are directed primarily to the interests of undergraduate students, graduate and professional students have expressed the need for events that would provide a common meeting ground with their peers in other schools of the University. They have also voiced an interest in receiving more information on University activities and services in general.

The sense of campus community should extend beyond graduation. The Commission recognizes that alumni organizations provide valuable assistance in sustaining identification with the University, spreading its reputation, and developing a network of support. In particular, the Commission recognizes the contributions of the General Alumni Association and its constituent organizations.

In addition to campus activities, the Commission looked at University residence halls and the Marvin Center. The University has a strong housing program as a result of ongoing efforts to keep residence halls physically attractive and to support residence life programs. The Marvin Center renovates portions of its facilities each year to meet changing student needs and to refurbish heavily used facilities. Since the Marvin Center is the facility most used by members of the University community and guests, it is especially important that it have facilities that are expressive of a collegiate atmosphere.

In the area of student services, the University has excellent opportunities for establishing partnerships between faculty and student affairs professionals to strengthen student advising. The Career Services Office, for example, provides valuable professional services by working in formal liaison relationships with schools

and colleges to help faculty develop an understanding of the job market related to their fields. It also helps large numbers of students learn job searching skills and supports an active on-campus recruiting program. Other services provide counseling and assistance to international, disabled, and Educational Opportunity Program students, and students needing counseling and health services. The kind of professional assistance these services provide are an important complement to faculty advising, and the Commission believes their long-range development should be supported.

Academic advising is always a problem which warrants the attention of schools and colleges. In particular, the need for advising on admission to professional schools was brought to the Commission's attention. Columbian College has had an advisor for pre-medical students for some time. The role of the advisor has been to aid students in selecting courses and to compile the University reference for medical school admission. Most recently, pre-law advising has been conducted by the Fellowship Information Office. Many colleges and universities now provide more expanded advising assistance to students to help them prepare for the increasingly competitive application and interview process.

Since many undergraduate students plan to enter professional schools, the University should develop a highly visible and active program to aid them in gaining admission. Such a program should be located in Columbian College but involve faculty from other schools since a large percentage of students from all undergraduate units seek to enter professional schools following graduation. Faculty from professional schools can provide important program advice. Student service professionals should also be involved because of their expertise in counseling and helping students develop the kind of skills necessary in the application process. The University should provide release time for one faculty member to coordinate the program and give it direction. Funds for clerical assistance and some programming would be required. There would also have to be changes in the student information system so that advisers could track students after they select their majors.

The Commission also examined the support that the University provides to part-time students. These students constitute 47 percent of student enrollment yet few services are available to them after 5:00 P.M. The University should provide greater access to campus services for this group by extending hours for registration, the bookstore, and academic and administrative offices. Part-time students would also be better served by streamlined registration procedures.

Facilities

Over the past fifteen years, facilities additions have almost transformed the campus. New and renovated facilities have made possible important expansion of and support for academic programs and have significantly enhanced student life. Nevertheless, some facilities needs remain. The natural sciences and engineering have the most severe deficiencies in facilities. In other areas, additions and improvements will be necessary to support existing programs. Further, Commission recommendations require additional facilities. These are discussed along with the recommendations in other sections of the report.

RECOMMENDATION: At the earliest possible time, the University should provide modern laboratories for teaching in the natural sciences and engineering and additional facilities to support research and teaching in these areas.

There have been several plans to renovate science facilities, and limited progress has been made. However, the needs of the relevant Arts and Sciences depart-

ments and of the School of Engineering and Applied Sciences are now critical. Modern laboratories and equipment for teaching are essential. Current facilities are inadequate both in quality and quantity. While some of these deficiences can be met in part by pursuing outside funding more aggressively and by utilizing the nearby government research laboratories, the University must begin to provide for the future of these programs. It cannot delay any longer to plan for new facilities and obtain the funds necessary for construction and equipment.

The resolve of the University to build quality in research will probably be most severely tested in the physical sciences, the life sciences, and engineering. These disciplines require large amounts of space and equipment, which is expensive to purchase and to maintain. In addition, this equipment is subject to rapid obsolescence and must be updated on a regular basis. Nevertheless, if the University is to achieve first-rank status, it must implement this recommendation soon, and in a substantive manner.

The research programs in the sciences and engineering hold great promise for the University. One measure of their quality is the success they enjoy in obtaining sponsored funding. The School of Engineering and Applied Science can show a record of success extending over many years, as can a number of the life science departments in the School of Medicine and Health Sciences. In the physical sciences, the recent records of the Departments of Chemistry and Physics show great promise. The opportunities for achieving even more funding quickly are real and present.

Departments in the School of Medicine and Health Sciences do not have quite as critical a need for space and equipment as do the sciences and engineering. The School of Medicine and Health Sciences is housed in a modern building which was equipped with state-of-the-art instrumentation at the time of occupancy. Nevertheless, the needs of these departments must be considered in long-range planning for the future of science and engineering at this University.

The Commission is not recommending across-the-board support for all research programs in the science and engineering departments, and it recognizes that available on-campus space is limited. Rather, careful planning is required to determine which areas of research have the best prospects for success given the University's current strengths. The Commission recognizes that there are many difficulties in planning for facilities, but this process must be undertaken in the very near future and conducted with great resolve.

The University should also acquire land in a suburban location to provide for current needs and to give the institution flexibility in developing future research and instructional opportunities. This recommendation envisions the acquisition of a significant parcel of land to provide additional space for academic activities and athletics. The University now needs space for certain research activities as well as some classroom space to serve individuals and industries in the Washington, D.C. suburbs. Other University activities could be enhanced if a suburban location were available. For example, some aspects of the research efforts at the Medical Center cannot be adequately accommodated on the present site but could be expanded if the University acquired a suitable suburban location. Finally, the Commission believes that the University should be prepared with sufficient physical resources in the event that opportunities to expand its research and teaching functions arise in the future.

The University should also establish plans for the expansion of both the Marvin

Center and the Smith Center. When the Marvin Center and the Smith Center were built in 1968 and 1974, respectively, they added significantly to the quality of campus life. Both these facilities are now used to capacity and cannot meet existing demands for activities. The Marvin Center serves 14,000 people daily and accommodates 35 group activities each school day. Facilities such as the cafeterias are used to capacity, and there is demand for additional space for groups. The Smith Center also receives heavy use. Approximately 2500 people enter the facility on an average weekday. It is difficult to accommodate increasing interest in individual recreation and intramurals. Space for practice, training, and offices is also needed by men's and women's intercollegiate athletics. The building, planned primarily to serve the Departments of Human Kinetics and Leisure Studies and of Men's Athletics, is simply not adequate to meet current demands for use.

It is also clear that the George Washington University Hospital will need substantial renovations in the next few years so that it can continue to provide quality health care. The University is now exploring options that should enable these renovations.

The University will also need to consider providing additional general purpose classroom space, faculty offices, and residence halls in response to changing programs and enrollment. Sufficient residence hall space to house the undergraduate enrollment desired by the University is required.

Finally, it is important that the University continually review and upgrade the quality of its facilities. Increasing academic quality requires attention to facilities. Success in attracting the kind of faculty and students the University seeks to help achieve its goals for excellence will depend partly on the attractiveness of the surroundings. Also, the public forms an image of the University's overall quality from the environment in which it conducts it activities.

As stated earlier, extensive and important facilities additions and modifications have been made in recent years. However, some schools still reported that the kind of office space available is a real handicap to faculty recruitment. Physical separation of members of certain departments is a significant barrier to development. Some of these problems may be exacerbated by the year 2000. It is also important to recognize that as University programs increase in stature, there are greater opportunities to host major conferences and seminars. These activities require a different kind of space than has been available generally on campus. While not as broad an issue, attention to facilities for the arts is also important to an institution of growing quality. Some needs of the performing arts department were discussed earlier in this report. Expanded facilities for an art gallery are also important to the continued development of the Department of Art.

Until basic needs identified earlier in this section have been addressed, the Commission recognizes that major attention cannot be given to upgrading other facilities, but it urges attention to these qualitative improvements where possible.

University Planning

The Commission has recommended ambitious goals for the University. Such goals are attainable with the wholehearted commitment of all members of the campus community and their active involvement in developing the plans required to achieve greater quality and distinction.

At present, the University does not have a planning process that is capable of addressing such broad institutional objectives. It has relied instead on a decentralized

decision-making process that has given the predominant planning function to schools, colleges, and departments. While members of the University value the freedom this approach affords, the Commission heard faculty and deans express frustration that decisions made by the central administration do not take their priorities into account sufficiently. In contrast, administrators reported that they needed more systematic input from schools, colleges, and departments.

The Commission believes that a University-wide planning process would help to resolve these problems. Various departments and schools have initiated evaluation and planning processes which have proven to be effective in influencing positive change. The Graduate School of Arts and Sciences' program evaluation and planning process mentioned previously has demonstrably helped faculty members redirect and focus academic programs and research. Similarly, the School of Government and Business Administration's "Project 21," which was designed to project the educational needs of future students, has resulted in the formulation of new courses and degree programs. This project is expected to generate new activities for the School for some years to come.

The goals the Commission has set for the University require that similar planning processes be extended to each department and school. They also require greater coordination of planning to insure that budget and facilities plans reflect the academic priorities of the University and of the various academic units.

RECOMMENDATION: The University should develop a coordinated planning process to support its efforts for significantly greater academic quality and distinction.

The Commission believes that a University-wide planning process is essential to achieving the objectives and goals discussed in this report. The Commission envisions a planning process that preserves the strength of the schools and supports their ability to innovate. This planning process must rely on the informed advice of the University's academic and administrative units.

The first step in more centralized planning must be the development of coordinated objectives for the University. The Commission has provided the University with a complex set of recommendations. It has not, however, ranked them in order of importance or cost. The establishment of priorities is essential to the implementation of these recommendations but is beyond the expertise of the Commission since it requires current knowledge of the availability of possibilities for fund-raising, personnel resources, student demand, and other factors. Recommendations, such as those of this Commission, must be evaluated and revised periodically as experience and the availability of new opportunities indicate. Groups similar to the Commission will need to be appointed to advise on the reformulation of objectives as conditions change.

Second, the Vice President for Academic Affairs will need to establish a program review process in conjunction with the deans, relevant faculty committees, and departments to evaluate departmental programs, develop plans, and identify resource needs, including requirements for additional staff, equipment, facilities, and library and computer support. The process should include provisions for the review of programs for possible discontinuance as well. The deans and the Vice President will also be responsible for assigning priority to academic plans on the basis of their potential contribution to meeting the goals of the University.

The departments bear the primary responsibility for evaluating academic programs and research activities and for formulating the directions in which they need to develop to meet University objectives. While many other factors enter into the

planning process, academic plans must be grounded in knowledge of the disciplines affected and of sound educational practice. The departments' contributions are key to the development of viable plans.

In the course of the Commission's deliberations, several departments identified specific needs for development. Some of these needs are discussed elsewhere in this report, in the sections on facilities and research, for example. Many others are not addressed here. These needs are best addressed through the planning process where alternatives can be examined thoroughly. However, the Commission does propose that during the first planning phase, special attention be given to those departments with a high percentage of part-time faculty.

Academic plans must be coordinated with budget and facilities planning and with other areas essential to program support such as fund-raising, library and computer acquisitions, and student and administrative support services. In the reorganization of the administration which took place last July, the Office of the Provost was assigned responsibility for coordinating University planning. The Provost will have final responsibility for insuring that the planning process is implemented throughout the University, and for coordinating administrative and academic plans to achieve the University's objectives. An institutional research function has also been formally established in the Office of the Provost. This function is important to developing data on enrollment, budget, and related matters essential to the schools and departments for planning purposes.

In this regard, the Commission finds it essential for the University to provide data routinely for deans and, to a lesser extent, department chairs on enrollment, budget, and related matters. Deans should receive summary reports that display interrelated data essential for informed decision-making. The computer support systems, discussed in the section on technology, should facilitate the development of a reporting system between the central administration and the schools and colleges.

As the University moves to more formal planning, care must be taken that all points of view are considered in the process. Planning should promote sound decision-making; it should not cut off debate. Ongoing communication among all levels of the University community is essential to good academic planning.

In recommending this planning process, the Commission recognizes that the departmental planning required will add significantly to the responsibilities of the chair. In fact, many of the Commission's recommendations have implications for the role of the chair, and on several occasions the Commission discussed the need to reinforce its importance. The job of department chair is one of the most difficult in a university. The chair encounters demands from students, departmental colleagues, and administrators, and differing and frequently conflicting expectations concerning the chair's responsibilities. Departmental faculty, for example, may expect the chair to act primarily as spokesman for their collective views while a dean may expect the chair to play a strong part in determining policies and programs of a department. In addition, expectations of colleagues and administrators frequently are not communicated clearly or consistently, leaving new chairs to learn by trial and error.

There is a good deal of variation concerning the extent to which these matters constitute problems here, but the question of defining the responsibilities of chairs is sufficiently important that the University should clarify the responsibilities. The Vice President for Academic Affairs, in conjunction with deans and chairs, should develop a set of written expectations for the position. There is probably little that can be

done to minimize conflict in expectations, but more could be done to convey them clearly.

In addition, several steps should be taken to recognize the chair's increasingly important role. The University should uniformly insure that compensation is commensurate with the chair's role and that there are adequate provisions for course release. Departments must also be provided with administrative support so that chairs can be freed of essentially clerical tasks.

Departments themselves may wish to review their criteria for recommending chairs and, particularly, their conditions for the length of the appointment. Departments will require effective and experienced leadership to develop sound academic plans. Leadership will be more and more important to the ability of the department to set forth and implement plans for development.

DISTINCTIVE ASPIRATIONS

Previous sections of this report have dealt with recommendations designed to improve the quality of the University and to capitalize on the opportunities it has in specific program areas. As these recommendations are implemented over the next fifteen years, the University will become significantly stronger.

Two additional areas, if developed systematically across the entire University, would result in programs with which George Washington University might become particularly identified. These are the international dimensions of academic programs and the study of government and public policy.

A third area, technology, has been selected as an area of distinctive aspiration largely because of its growing importance as a field of intellectual endeavor and because of its implications for many other disciplines.

Each is an area in which the University has demonstrated major strength currently, and which is important to most of the University's schools and colleges. Each of these areas will continue to be of great importance in the twenty-first century. If the University chooses to emphasize these areas by taking major steps to accelerate their development, the potential for international recognition will be realized.

In the following sections, the Commission discusses each area in turn. First, it examines the context for the development of these new emphases. Second, it proposes steps to effect their integration into the University. Finally, it makes recommendations for specific programs or activities.

International Programs

The University's location in the nation's capital provides extraordinary opportunities for international programs. As a world center for international diplomacy, trade, business, and culture, the capital is host to visiting scholars who are available for consultation and teaching. As the seat of government for the United States, the capital offers easy access to government officials who are involved in international issues. Many of these officials have strong personal and professional interests in associating themselves with research and graduate programs.

The University itself has rich international resources. Virtually all schools and colleges have significant international dimensions to their programs. Faculty conduct extensive research abroad and routinely publish important books and articles on international questions. The National Law Center and the Institute for Sino-Soviet Studies each publishes a distinguished journal dealing with international issues; the American Studies program publishes a journal directed to international scholars of American Studies. The School of Government and Business Administration has earned special recognition for its work in the international area. The Academy of International Business recently recognized this School as the most outstanding school in the country for its successful development of an international focus throughout its academic programs.

Students from other countries are also drawn to the Washington, D.C. area, and to this University. Approximately 2500 students, or 15 percent of the University's student body, come from other nations. Their presence throughout the University adds a vital international dimension to the University's educational activities.

Many of these international students come to George Washington University because they seek a specialized education that is not available in their own countries. Others are attracted because of the University's proximity to the diplomatic com-

munity. Further, some students are here as a result of protocol agreements with other nations or foreign universities. The faculty too has become more international in recent years. Foreign-born scholars of international reputation bring insights from their cultures to teaching and research that benefit their American colleagues and students.

American students are studying in other countries in greater numbers. Between 1981 and 1983, the number of the University's undergraduate students studying abroad increased from 74 to 123.

As yet, the international aspects of the University have not been developed to their potential. The Commission believes that this is an opportune time for the University to plan deliberately for more institutional involvement in international issues. International perspectives in an increasingly global society are important. Further, the University can do more to capitalize on its location in one of the most important international centers in the world.

RECOMMENDATION: George Washington University should develop an international emphasis in all schools and colleges.

To implement this recommendation, the Commission proposes that the University should undertake a significant expansion of its international programs. Such an expanded emphasis should include more effective coordination across the University, strengthened faculty and programmatic resources, and financial plans for substantial new initiatives. These efforts are designed to develop an appropriate international dimension in each school, college, and department. The discussion below outlines steps that should be taken to build this international emphasis.

The President should appoint a campus-wide coordinating Council on International Programs to oversee the implementation of this new emphasis. The Council's membership should be based on recommendations from the deans, directors of institutes and centers, and chairs of departments particularly related to the study of international affairs. Appointment of the Council by the President would establish the importance of the emphasis on international affairs to all divisions of the University. This Council would serve as a special coordinating body for international programs across the campus and also as an advisory body to the School for International Affairs. The Dean of the School for International Affairs should serve as the chair, and the administrative functions of the Council should be located within the School. (See recommendation on a School for International Affairs.)

The Council on International Programs should play the central role in advising on the programmatic considerations related to the recruitment, hiring, promotion, and tenure of any scholars brought to the University to teach and/or undertake research in international affairs. This role is necessary to provide balance in University-wide planning for international affairs; to assure that faculty specialties complement each other; and to avoid redundant staffing.

The University should insure that foreign language courses needed for the study of international issues are available. A strong program of foreign language instruction is an indispensable element of this new international emphasis. Some language offerings must be specialized to particular academic programs to assure that they meet the applied language needs of the students and faculty concerned. For example, students in the School of Government and Business Administration might require a course in business French. The expansion of the language offerings must be selective, of course, and should reflect the explicit programmatic needs of the schools.

In addition, ways should be sought to expand a student's involvement with a foreign language to other courses. Too frequently, on both the undergraduate and graduate levels, completion of a foreign language requirement marks the end of any real use of the language. With the advice of the language departments, faculty members in other disciplines might, for example, assign readings and/or research in the language the student has studied.

The University's new efforts to develop and to emphasize its international activities should be publicized. The Commission recommends that the University consider the establishment of a quarterly bulletin that would describe the University's programs and accomplishments in the international area. This bulletin should be published by the School for International Affairs and other interested and appropriate units. It would be distributed to a broad audience: firms involved in international affairs and commerce, alumni, undergraduate advisors in political science and international affairs at other universities, universities in other countries, and government agencies.

In another area, cooperative agreements with foreign countries, the University has potential for development. To maximize the effect of such arrangements, the University should coordinate and expand the development of cooperative agreements with other nations and foreign universities and insure their implementation. Currently, the University has agreements with approximately 25 institutions around the world. Most of these have not been implemented fully — some because of political developments abroad — and thus have not had the significant impact which was originally intended. Coordinating the development of agreements would insure that they are consistent with University goals and are negotiated to provide maximum possible benefit for each academic unit. Periodic evaluation by the Office of the Vice President for Academic Affairs might aid in deriving more advantages from such agreements.

In particular, to fulfill international objectives, the University must be more than a host institution in these exchanges. The University should especially explore the possibilities of establishing ties with universities in other capital cities. The basis for such agreements might be dialogue regarding university/state relationships. These relationships vary from country to country, and formal explorations by the universities themselves might contribute to understanding the differences. Such relationships might also form the basis of profitable student and faculty exchanges.

A School for International Affairs

RECOMMENDATION: The University should develop the present School of Public and International Affairs to serve as the cornerstone for the University's diverse programs in international affairs.

Very early in its deliberations, the Commission determined that consideration should be given to strengthening the School of Public and International Affairs as part of the effort to expand the international dimensions of the University. It was obvious that the School should play a leading role in this effort. The School would build upon the University's strengths in international affairs and provide the University with a natural focus for its international goals. Further, it could coordinate the diverse programs in the international areas while respecting the integrity of the other schools and colleges. Beyond its internal advantages to the University, the development of the School would give the University a distinctive, authoritative, and visible

presence in the international communities of scholars, business professionals, and government officials.

A strengthened School could also draw together the international scholars from the various units of the University with scholars, professionals, and diplomats from the larger international community within this city. With expanded areas of scholarly expertise and with its ability to call upon the resources available in the Washington community, George Washington University can become a major contributor to the study of international issues in a number of fields.

To accomplish this goal, the Commission proposes that the School of Public and International Affairs be reorganized as the School for International Affairs and established as the focal point and coordinating unit for all international programs at George Washington University.

The Commission determined that changes in the existing School of Public and International Affairs were essential to achieving the University's goals in international affairs. First, to build the School's strength as a center for the study of international affairs, the dean and the faculty should be able to concentrate their efforts on rethinking, broadening, and building the school's international curriculum and programs. The Commission recommends a broad definition of international affairs that includes: comparative analysis of national systems: markets, institutions, ideologies, demographics, and cultures; and more traditional topics of international studies. However, the focus of the new School must be entirely on international affairs. Second, the new School must have some faculty of its own whose primary loyalty and activities are centered in the School. The present faculty has responsibilities for a number of different programs, which necessarily dilutes the attention they can give to the School. Third, the dean of the new School must have effective administrative control of the program in international affairs. The dean must have sufficient authority, for example, to assure adequate advising, assign courses on the basis of curricular and faculty development needs, and free faculty for research and other activities of benefit to the School.

The Commission proposes several steps to effect the reorganization of the School. Since the programs in public affairs and urban affairs are based in the social sciences, they should be transferred to Columbian College and the Graduate School of Arts and Sciences, where they will be received as a welcome addition to existing programs relating to the study of government. The Center for Washington Area Studies should be transferred to the Graduate School. (See section on the Study of Government for further discussion of these programs and the Center.) The Department of East Asian Languages and Literatures should be relocated with the other language departments in Columbian College. In turn, Latin American Studies should be transferred from Columbian College to the School for International Affairs. The Institute for Sino-Soviet Studies and the programs in science and technology, security studies and, of course, international affairs should remain in the School.

The School for International Affairs should complement the present strong international affairs faculties of the University with additional appointments of tenure track professors and non-tenure track faculty to be appointed for terms of three to six years. All of these appointments would be made directly to the School for International Affairs and, where tenure is involved, tenured there. All such appointments would normally be fully funded by the School.

This recommendation that the School for International Affairs be supported in the development of a core faculty does not contemplate the establishment of an

entirely new faculty. The School will continue to rely upon other divisions of the University for the bulk of its teaching. This recommendation, in fact, contemplates adding only four to six new tenure track faculty members over the next ten years.

While new faculty members would be appointed directly to the School, these appointments should be made jointly with existing academic departments whenever possible. To maintain academic integrity in decisions involving faculty personnel and to insure that these new faculty members enjoy the respect of colleagues within their disciplines, the relevant departments must play a major role in evaluating the disciplinary credentials of any candidate for appointment, promotion, or award of tenure. The exact nature of the relationship between the departments and the School for International Affairs with regard to these new positions should be specified clearly.

Joint appointments between the School and the departments, with tenuring in the School, is a model used successfully by international affairs programs at other major universities. Such appointments serve faculty needs and avoid unnecessary redundancy in staffing. They afford faculty members appointed to the School for International Affairs the association with others in the same discipline that is sought by scholars and that encourages maintenance of high scholarly standards. At the same time, tenuring these new faculty members to the School avoids using departmental tenure slots for faculty members who are hired primarily to fulfill the special needs of the School for International Affairs. This approach enables departments to use tenure slots for their own priorities while freeing the School from complete dependence on other colleges and schools in the University. It represents a sensible compromise between the dean's almost total dependency on other divisions of the University and the risk of redundancy and dilution of disciplinary integrity that might accompany a large core faculty completely independent of the traditional departments.

To provide students and faculty with the knowledge and expertise of "practitioners" in international affairs, the School should also appoint non-tenured contract professors, to be recruited from professionals within the diplomatic community, government, international business, communications, and industry. The practitioners should be appointed for terms of up to six years. "Practitioner" faculty would be expected to bring to the University distinguished reputations and extraordinary experience in international affairs as diplomats, journalists, business professionals, and the like.

The faculty of the School must be reconstituted as a result of the reorganization of the School. The following or similar criteria should be employed to determine who shall be a member of the faculty of the School for International Affairs and eligible to vote at its faculty meetings. In addition to those faculty members appointed to the School, eligible voting faculty should be designated each year and include: full-time faculty from other academic units who, on a continuing basis teach courses, approved as part of a degree program of the School, that are predominantly international in content or that are in area studies; all program heads of the School; and, ex-officio, chairs of departments offering courses in which the School's students are heavily enrolled. Regular faculty of the School might vote annually to determine which members of the University faculty qualify under the above criteria.

After a period of strong budgetary support, the School should be able to carry a substantial portion of its non-salary budget from monies raised through grants, gifts, and contracts. In addition, there is the possibility that a naming gift could be secured

which would provide endowment income to the School. The Commission believes this opportunity should be strongly pursued.

The School should appoint a board of advisors to provide support in such matters as curriculum planning, fund-raising, graduate placement, and external relations. The board's members should be distinguished representatives of the international affairs community. This board would serve the School's specific needs, as distinct from the Council on International Programs, which would be concerned with University issues.

The School for International Affairs should undertake a substantial program of international conferences. Initially, the School should support a maximum of two conferences annually. The University should provide funds for this program for the first two years. Thereafter, the dean of the School would be responsible for raising the funds necessary to support this program. The funding should be sufficient to cover honoraria, support for distinguished scholars and public figures, and the publication of the proceedings.

The University should make funds available to provide special faculty support services through the School for the faculty in international affairs. Such services might include travel funds, research grants, graduate research and teaching assistantships, and distribution of reprints of articles by faculty.

The University must take steps to be competitive in attracting top graduate students in international affairs. The recruitment of well-trained, gifted, and motivated students is necessary to the development of any distinguished graduate program. Four steps are necessary. First, the University must sponsor a reasonable number of substantial scholarships, fellowships, and graduate teaching appointments. Second, the University must provide graduate students with effective advising and committee support throughout their graduate program, including the opportunity to work closely with the most distinguished members of the international studies faculty. Third, the University must provide students with career guidance, including realistic advice about employment opportunities and substantial assistance in obtaining appointments to university, government, or private positions. Finally, the University should provide reasonable funding to permit graduate students to undertake study abroad, including support for study grants and other opportunities that are customarily not completely funded by the granting firms, foundations, agencies, or governments.

The University must provide appropriate physical space to permit the new School to bring together its administrators, support staff, and those faculty whose primary research and teaching interests are in international affairs. The quality of facilities is a very important factor in determining external impressions; it also demonstrates the University's commitment to the School. Good facilities are also important in the internal efficiency and effectiveness of the School, its faculty and staff, and its students.

Attractive space, including conference and seminar rooms, not only facilitate collegial activities and productivity, but enhance faculty and student morale. The School must be able to develop a cohesive identity and faculty loyalty if the University is to build a distinguished program in international affairs. The primary identifications of faculty tend to grow from their immediate associations. By clustering faculty with shared professional and scholarly interests, the University enhances the sense of intellectual community. Further, effective recruitment of the proposed con-

tract faculty will require hospitable facilities in terms of office space and support services.

The new space for the School should also contain a lounge in which materials such as professional journals, a collection of books and periodicals, and government reports might be available. This lounge would facilitate use of reading materials; promote fuller professional and scholarly interaction among faculty and between faculty and students; and afford a proper civility to receptions and other functions when the School hosts distinguished scholars, government officials, and practitioners.

Should the expansion of international affairs prove successful over the next five years, the Vice President for Academic Affairs should then appoint a University-wide study committee to determine whether it would be appropriate to re-establish the Ph.D. in International Affairs.

The Study of Government

Several conditions argue that the University should select the study of government and public policy for special emphasis. The University's location in the nation's capital is a key factor. Its location affords faculty and students special opportunities for the study and observation of government. Other organizations have recognized the importance of being in Washington, D.C. Institutes, foundations, public and private interest groups, independent analysts, and the other colleges and universities in this city produce a rich diversity of scholarship dealing with the principles, processes, and impact of government.

Among those organizations which study government, however, George Washington University holds a unique position: It is an independent, non-sectarian university whose faculty and students consider questions relating to government from many different disciplinary perspectives. It holds no institutional position on public policy issues — its faculty and students are free to develop their own views. In addition, the University has a long history of service through the education and training of the nation's leaders. No other institution in the city occupies quite this same favorable position.

The University has already taken some advantage of its special strengths in areas of study relating to government. There are a significant number of faculty members throughout the University whose principal focus is government and public policy, and there are many more who believe that some issues in government and public policy are related to their central concern. Moreover, student interest in programs in government and public policy is high. The University also enjoys special relationships with a wide diversity of government agencies and officials, relationships that are evaluative as well as cooperative.

Given the University's traditions, its location, and its current strengths, the Commission believes that with additional resources and emphasis the University could become one of the preeminent centers for scholarship on government and governmental processes in the world. It could offer to students in each of its schools and colleges a unique opportunity to relate their studies to the processes of modern government. The active involvement of each academic unit, careful planning, and significant resources would be required, but the Commission believes this objective is obtainable.

RECOMMENDATION: The University should initiate steps that will result in the strengthening of its research capability in the area of government. The University should also make a major effort to offer students in every school and college a

unique opportunity to relate their studies to the processes of modern government. Toward these ends, the Commission proposes that each school and college:

Appoint a Board of Academic Visitors, which will meet annually to discuss how the college or school is serving the University's goal of becoming an eminent center for the study of government. The Board's members should be drawn from the most distinguished leaders in public service and the private sector;

Establish a program of internships and fellowships to place gifted undergraduate and graduate students in appropriate government agencies and to attract government officials, professionals from the private sector, and faculty members from other institutions to the University to participate in degree and non-degree study and research in the arts and sciences of modern governments;

Report annually to the President and trustees on its curriculum offerings to strengthen its focus on the study of government and its efforts to strengthen scholarship and research in areas relating to government;

Sponsor an annual colloquium, conference, or similar program for the intensive study of an issue important to modern governments. Scholarships and fellowships should be used to attract a distinguished national audience. The proceedings should be published.

As part of this emphasis on the study of government, Columbian College and the Graduate School of Arts and Sciences should undertake to build the programs in public affairs and urban affairs.

These programs have potential, but enrollments have been very small in recent years, partly due to decreased student interest in these areas generally. However, the Commission believes that, with renewed attention, these programs will attract more students and can become an important part of the expanded emphasis on programs focusing on the study of government. The Commission has been assured that these programs will receive support and attention in Columbian College and the Graduate School of Arts and Sciences.

The public affairs and urban affairs undergraduate degree programs will fit well within Columbian College's structure of interdisciplinary majors and can develop there under the guidance of the program faculty. The graduate program in public affairs, while quite different from the existing Graduate School master's programs in various policy areas, can benefit from its association with these programs.

The Center for Washington Area Studies is important for a number of reasons. Through the activities of the Center, most notably the research conducted under its auspices, the University has earned an excellent reputation in the area of regional studies. Much of this research is directed toward developing understanding of local government and its processes and problems. The Center is, therefore, important to the University's aspiration of becoming one of the preeminent centers for scholarship on government. The Center is also the vehicle through which the University contributes faculty expertise to the understanding of problems of the Washington, D.C. area, its history, and its significance as a center for culture. As such, the work of the Center is a very important component of the University's service to the Washington, D.C. community. Not only should the Center's present activities be continued within the Graduate School, but ways should be sought to expand its impact.

A Center for the Study of Public Policy

RECOMMENDATION: The University should develop a Center for the Study of Public Policy to aid in developing new research programs, particularly those which emphasize multidisciplinary activities, and to facilitate and strengthen current faculty research.

Based on its current strengths, the University clearly has the capability of developing a Center for the Study of Public Policy that could achieve national distinction. Public policy is already a strong research, teaching, and programmatic activity across the entire University. The variety and quality of these activities assure the Center's potential for encouraging multidisciplinary research. In particular, the Departments of Economics and Political Science have faculty members with strong records in policy research. Within the School of Government and Business Administration, there has been growing activity in policy research. Health policy matters are of increasing concern to the Department of Health Services Administration and other faculty of the School. In the Department of Public Administration, a majority of the faculty has research strengths in the area of public policy. The Institute for Sino-Soviet Studies; the program in Science, Technology, and Public Policy in the School of Public and International Affairs; and the Center for Social Policy Studies all involve faculty members who have made significant contributions to the University's growing strength in public policy research. Faculty from other schools of the University have shown interest in this area as well. National Law Center faculty have considerable expertise in public policy issues; faculty from the School of Education and Human Development and the School of Medicine and Health Sciences have also been involved with questions of public policy relating to their respective fields. The School of Engineering and Applied Science has shown interest in the study of public policies affecting science and engineering and in applications of computer equipment and software as tools for policy analysis.

The University also has strong academic programs in public policy. The Graduate School of Arts and Sciences has a growing doctoral program in public policy, as well as policy programs at the master's level which enjoy strong student enrollments. In the School of Public and International Affairs, there has been high student demand for the programs in Security Policy Studies and Science, Technology, and Public Policy. Within the School of Government and Business Administration, the Department of Public Administration offers a concentration in public policy, and the Department of Business Administration, a program in business economics and public policy.

Equally important, the University's location in Washington, D.C. means that a Center for the Study of Public Policy can build upon the University's location as well as its academic strengths. Many faculty members have ties to the local, national, and international policy communities. The proximity to research resources also gives faculty and students a considerable advantage over their colleagues in other parts of the country. Students can also benefit from the varied internship opportunites in this area, which not only enhance their education, but often lead to future employment. Finally, the University's location gives the faculty an edge in the competition for government grants and contracts.

Despite these strengths, the University's true potential in the area of public policy has not been realized. The fragmentation of policy activities among the schools and research units has been a barrier to the University's general identification with the study of public policy and to coordinated research activities.

In studying this problem, Commission members undertook extensive discussions with deans and faculty members at the University as well as faculty and administrators from public policy centers at universities across the country. Based on these discussions, the Commission concluded that, to serve this University's interests, a Center should act as a catalyst for new research efforts in public policy; enhance the faculty's current research; encourage the participation of faculty members from all academic units; be related to schools' and colleges' academic programs; and operate under rigorous academic standards. The University would have to insure that the Center focuses on areas associated with the faculty's interests.

To develop the capability to initiate new projects, the Center should appoint as visiting scholars four to five individuals — practitioners, analysts, or researchers — from outside the University at any given time. These individuals should be selected to fill a research need or for particular contributions they can make to the intellectual life of the Center.

The Center should draw upon University faculty and its own expertise to take advantage of funding opportunities for research and other activities that are consistent with its mission to advance scholarship in the policy area. The identification and development of funding possibilites will be an important activity of the Center.

The Center should also operate to support the existing interests of faculty members in conducting policy research. It should aid faculty in obtaining funds, but it should also have the capability to obtain course release for faculty and to support administrative costs for projects for which no outside funding is available. The Center might operate in a manner similar to the University Research Committee, which awards funds to faculty members who submit promising research proposals. The Center should also serve as an important source of support for graduate students, awarding stipends for research, and involving them in faculty research projects.

To support these research roles, the Center should be a place where faculty members and others can obtain information about policy projects and where scholars can interact on a regular basis. One of the major problems associated with the University's current fragmented efforts in the policy area is that faculty lack knowledge about other faculty who might have related research interests. Lack of interaction across disciplinary lines also inhibits multidisciplinary research efforts which are important in examining policy questions. In particular, the Center should promote multidisciplinary approaches to the study of policy.

The Center for the Study of Public Policy should be established as a separate administrative unit that draws upon the strengths and contributes to the programs of all of the University's schools and colleges. The Center should be organized as an administrative unit under the Vice President for Academic Affairs and should be headed by a director with a record of scholarship in public policy as well as experience in providing leadership in policy research projects.

The Commission considered four organizational models for policy centers: a degree-granting school in public policy; a separate unit loosely attached to a university; a division within an existing school; and an administrative unit coordinating policy research from the separate departments and schools. Of these, the last model, which is the approach of Yale University's Institute for Social and Policy Studies, seemed to incorporate best the functions previously identified for the Center. The University has demonstrated success with such an academic unit. The Division of Experimental Programs was similarly organized. It successfully drew upon the

strengths of the faculty and fostered the development of programs of quality closely associated with the faculty's interests and needs.

The director should have a faculty appointment and play an advisory role in decisions relating to the recruitment, appointment, and promotion of faculty in the policy area. The director's responsibilites should include: identifying, developing, and administering policy research projects; fund-raising; establishing relationships with the external policy community; producing conferences and seminars on important policy topics; and publicizing the activities of the Center.

The Center should provide office space for those practitioners, analysts, and scholars from outside the University as well as provide offices for University faculty members on sabbatical at the Center. Initially, the Center will need office space for up to ten individuals and a small conference room.

The Vice President for Academic Affairs should appoint a committee of deans and faculty members to advise the director and to oversee the operation of the Center. If the Center is to be successful in meeting its objectives, its programs must reflect and reinforce the curricular interests in policy studies of the various academic units. This committee would be composed of members representing all the schools and colleges and would maintain the relationship between academic programs and the Center's activities. The Commission believes similar oversight provisions of the now dissolved Division of Experimental Programs served successfully in maintaining links between the priorities of the Division and the schools and colleges.

The University must support the Center with funds on an ongoing basis. To enable the Center to develop in ways that will insure the quality and independence of its research, it must be supported, in a major way, by University funds. The University should be prepared to support the administrative costs of the Center, including the salary of the director, so that the director may be selective in pursuing outside funding. The Commission believes the Center will be successful only if its programs and projects relate to the needs and interests of the faculty and maintain high scholarly standards.

Technology

The two distinctive aspirations discussed previously focus on developing University-wide emphases on international programs and the study of government. The Commission believes that the University's location in Washington, D.C. makes feasible the development of programs in these areas that will be of national stature. In the area of technology, the University also has some locational advantage in its proximity to the National Bureau of Standards, the Naval Research Laboratory, and increasing numbers of private sector organizations with capabilities in technology.

Further, the Commission recognizes that the nation's capacity for technological innovation — the ability to discover, refine, produce, and use new technologies — is a characteristic vital to its ability to be technologically competitive. This capacity must be preserved, and indeed enhanced, if the nation's economic well-being is to be insured.

For these reasons, the Commission believes that any university which aspires to distinction in the twenty-first century must take into account technology and its consequences. In fact, by the year 2000 it is likely that universities will be judged to a substantial degree by how successfully they have adapted technology to their uses in research, education, and institutional management.

Universities must contribute to the development of technology through research and to the understanding of technological concepts by analyzing their implications. Technological innovation starts with original concepts, which usually result from advances in science and engineering, and proceeds through research and development, production, and distribution. Each of these stages involves economic, social, and political factors which must be understood and evaluated through research in the social sciences, the humanities, and business.

Universities provide a unique environment for technological research. University researchers are free to pursue research problems of their choice, which is conducive to the development of fundamental research. Universities are also possibly the only institutions where so many of the issues technology raises can be addressed on a systematic, ongoing basis. As communities of scholars trained in many different fields, universities are uniquely qualified to look at such issues, which inevitably require multidisciplinary approaches.

RECOMMENDATION: Technology must play a greater role in all the University's educational programs, research activities, and administrative operations.

The University must develop a greater emphasis on technology to achieve the distinction it seeks for the twenty-first century. Steps to develop and maintain this emphasis are discussed in the recommendations below.

Each academic unit of the University should insure that its curriculum contains opportunities for the study of important questions related to the development of technology. The curricular modifications required to implement this recommendation will depend upon the focus of the school in question and upon the current level of study. Faculty members with expertise in such areas will need to investigate and develop the appropriate curricular focus. Students in the liberal arts and sciences and business, for example, must develop some understanding of how engineers approach technological problem-solving. A few universities now offer engineering courses designed to introduce non-engineers to the processes and problems of technology. Others have dual degree programs in which students may earn a degree in mathematics or one of the sciences in three years and an engineering degree with two additional years of study. Such programs are attractive to those students who seek both a liberal education and a profession in engineering and applied science. Engineering students in turn must have more systematic opportunities to examine the implications and effects of technology, particularly in courses or programs with students and faculty from other fields. The University, for example, now offers a course in "Understanding Technology," which is open to upper level and graduate students in engineering, the sciences, and the humanities. This course looks at technology and how it relates to the sciences, the arts, and the humanities.

The University should continue to build its research capability by supporting selective areas of research. As in many other disciplines, the cost of research in technology is very high and competition for funds is keen. The University will be most competitive if it selects certain areas for emphasis and acquires over time the critical mass of faculty needed to develop the competence in those areas that can attract outside funds. Selecting some areas for emphasis means that others will not be able to grow. This appears to be a necessary trade-off, especially in technological research.

Selection of areas for research emphasis should occur in the course of departmental and school planning, as discussed earlier. Research areas, however, that

involve faculty participation from several different departments put the University in the best position to develop greater strength in technological research. The Commission received several suggestions for areas that have good prospects for successful development. Among these, the study of reliability engineering and reliability theory, essential to high technology, is particularly promising because the University has broad-based research strengths in this area. Areas of material science are similarly attractive because of the opportunities they will provide for collaborative efforts across many departments of the University. Research in computer graphics, image processing, computer art, associated perceptive and cognitive issues, and decision support systems can together form the beginnings of a research emphasis on user-computer interfaces that have special relevance for extending computer applications to those who are not experts in technology.

In addition to these University-wide involvements in technology, each school should be encouraged to develop emphases relating to technology which are critical to their disciplines or fields of study. Four schools identified such emphases to the Commission. Each of these schools — the School of Government and Business Administration, the School of Medicine and Health Sciences, the School of Education and Human Development, and the School of Engineering and Applied Science — has strengths in various areas of technology; each also has needs.

The School of Government and Business Administration, through its Project 21, has identified the role of information in management and decision-making as one of the most significant trends in business and government. As a result, research and teaching in the uses of technology for analytical purposes in government and business is projected to be a major emphasis of the School. The University should support the School of Government and Business Administration in developing this emphasis.

The School of Medicine and Health Sciences is interested in advances in technology that will enable the development of new techniques for diagnosis and treatment. The Commission encourages the University to continue to support the School's work. Further, there are certain areas where useful work can be accomplished through better interdisciplinary cooperation, such as genetics in the Graduate School of Arts and Sciences and genetic applications in the basic medical sciences. The Commission recommends that the appropriate deans and vice presidents develop a plan to increase cooperation between the faculty of the School of Medicine and Health Sciences and the other schools of the University.

The School of Education and Human Development seeks to become known as a leader in the educational applications of computers. The Commission recommends that the School be provided with the equipment and faculty it needs for research in this area. It should also promote research and development of programs to encourage the use of computers in instructional processes in schools and other educational/training settings.

Technology, its development and its applications, is, of course, a central concern of the School of Engineering and Applied Science. Participation in the development of technology is an essential function of the School, and it has gained increasing recognition for its contributions to the advancement of technology. Most recently, the $2 million grant for CAD/CAM (computer-aided design/computer-aided manufacture) from the IBM Corporation has provided substantial resources for education and research in these two components of technology. As stated earlier in the discussion of research in technology, it will be necessary for the School to select

certain areas of research for development. However, there is no disagreement concerning the importance of research to the School.

In support of the School's goals for research, the Commission endorses the development of the Center for High Technology which was recently established in the School. The importance of the Center to the University arises from developments in research in high technology and from the nature of competition for funds in this field.

Research in high technology requires multidisciplinary approaches, and the School must, therefore, develop multidisciplinary capabilities to take advantage of the opportunities presented by the new technologies. The Center, operating within the structure of the School, provides a unit which can coordinate the efforts of faculty from several departments and also serve as the locus of the School's efforts to respond effectively to opportunities for grants.

The Center is based upon existing expertise and faculty strengths within the School. Principal areas of research in the departments, some of which have been mentioned previously, include the CAD/CAM project; reliability; computer graphics; flexible manufacturing systems; and robotics. Reliability engineering/reliability theory has been established as the first emphasis of the new Center.

Over time, the Center for High Technology will be self-supporting. However, at this point, the School needs support to establish the activities of the Center and to demonstrate the University's commitment to the School's efforts to be competitive with other universities in the development of technology. The Commission recommends that the University provide funds for staffing and equipment to aid in the development of the Center for High Technology. Such support is critical to the School of Engineering and Applied Science's important role in the development of technology.

The Use of Computers

Implementation of these recommendations will go a long way towards advancing the University's interests in technology. It is through computers, however, that most faculty and students relate to technology. As stated earlier, the University already has substantial technical capability. Several units have plans to increase this capability. The Academic Advisory Committee to the Center for Academic and Administrative Computing's (CAAC) 1983 plan for the development of distributed computing capacity for the campus will be fully implemented by 1989. The plan calls for five classrooms to be equipped with 30 personal computers each, thereby providing access to the University's central computing system. Several departments have developed plans requiring expanded computer capacity for educational uses, as have several of the schools. The Vice President and Treasurer has developed plans to replace present rental telephone equipment with a University-owned network which, together with the plans of the CAAC and academic units, will have a major impact on the immediate availability of computing capacity. The University, through its membership in the Southeastern Universities Research Association, is participating in the development of plans that would provide the access to supercomputers required for research in such areas as physics and engineering. As noted earlier, all three libraries have made progress in automation and have plans for further development. Finally, more and more departments which previously had little interest in acquiring technology are beginning to request equipment and develop software for both educational and administrative purposes.

RECOMMENDATION: The University should rationalize and substantially expand its use of computer systems for educational and administrative purposes.

The Commission proposes actions to insure that the University is in the best possible position to take advantage of the developments in computer technology. To achieve this position, the University must further elaborate its plans for developing its computer capacity. Perhaps most important is the need to determine specifically how central computers, microcomputers, and networking – including links to supercomputers – can all fit together to provide the computing capability that the University will need by the year 2000. It will also be necessary to acquire many more microcomputers and accompanying software for administrative, faculty, and student use.

The Commission recognizes that significant resources will be required to finance new hardware and software. Currently, the computer-use fee finances such activities as the computer classrooms mentioned earlier. However, this fee approach is not practicable for the long-term since the majority of courses will require computer usage in the future. The University will have to identify other funding mechanisms.

In the immediate future, the University should encourage faculty and students to purchase their own microcomputers. It should aggressively pursue the possibilities for developing purchase agreements to enable students and faculty to obtain computers and software at the lowest possible cost. It should also provide assistance in selecting hardware and software to meet specific individual needs.

The University should initiate steps to increase both the range and depth of computer applications to courses and curricula throughout the University. Both the strengthening of existing activities and the acceleration of the extension of computer uses into new areas should result from implementation of this recommendation. Since computers are potentially important for substantial portions of the work of all academic departments, means should be found to encourage greater use of computers. In this regard, the Commission strongly supports the University's decision to appoint an Assistant for Academic Computing to the Vice President for Academic Affairs to provide leadership in the development of departmental efforts.

To expand computer use into all disciplines, it will be necessary to build faculty expertise in some departments. The Commission proposes that the University offer current faculty training in computer skills. It will also be important to consider computer expertise in new appointments to these departments. In particular, each department would benefit from the presence of a faculty member skilled in applying computer technology to instruction and research in the subject discipline.

The University should carefully consider what computer skills students must develop and what instruction it must provide. As computer usage requirements become more universal, computer skills similar to reading and writing skills will be required for students to function successfully in the University. Increasingly, students entering the University at all levels will possess these necessary skills. However, some means of assuring that students can operate at an appropriate level for their field of study will be important. This is a complicated problem, but the University should begin immediately to identify essential skills and to determine means, such as previous course work and testing, to assess student skill levels. Some instructional programs will come to be considered remedial because they focus on skills which students should be expected to have acquired prior to enrollment. Others will help students learn specific skills and applications they need for their individual work.

Students should have several alternative ways in which they can develop their skills. Currently, five departments, Electrical Engineering and Computer Science, Statistics/Computer and Information Systems, Management Science, Education, and Computer Medicine, offer courses that serve as introductions to the use of the computer. These courses have different emphases, but the departments should coordinate the material covered to some extent to insure that students develop similar and necessary levels of skill. Instruction relating to computers and their applications is provided in several other ways as well. Courses in specific applications are available. Faculty members include necessary instruction in courses requiring computer use, and the Center for Academic and Administrative Computing provides some instruction relating to the use of that facility.

As one approach to increasing students' access to and education in computers, the University should consider developing an Educational Computing Service. This service would have access to the computers and other facilities needed to serve the educational needs of students from all schools and disciplines. The Service would develop a staff capable of creating a user-friendly atmosphere for undergraduates who are inexperienced in the use of computers. In addition, the Service could provide non-credit courses, workshops, tutorials in specific applications, and programmed instruction to supplement formal instruction. A staff of graduate teaching assistants could be available to help students with routine user problems and could provide an important element of instruction. The Service could also sponsor group instruction sessions on commonly used applications.

While all departments will have to strengthen and extend their use of computers, certain departments have specific needs and interests relating to computers and computing. Some fields of study which require computer use lack sufficient computer resources. Faculty in the Department of Mathematics, for example, report that they lack necessary resources for mathematics laboratories and other purposes. Since mathematics is so important to many disciplines, inadequate resources in this area have broad implications. Lack of necessary computing capability in some science and engineering laboratories is another significant area of deficiency. The University should inventory all curricula and courses that directly depend upon computers and computing and should develop plans for addressing their outstanding needs for computer resources.

The University should continue its efforts to develop and coordinate the use of computers. The Commission believes that greater centralized planning will be required to develop the computing capability that will be needed University-wide. Coordination of computer and software acquisition is required to make maximum use of resources and, even more importantly, to enable the development of a networking system that will provide for the maximum possible amount of communication among computers both on and off campus.

The University should appoint a coordinator of computer-related issues concerning the adminstration of computer activities to work directly under the Provost. This coordinator would have responsibility for planning and monitoring acquisition of all computing equipment throughout the University. In additon, the coordinator would be responsible for the continued development of administrative computing and data processing. Such an appointment would accord with the practice of many other universities which are providing leadership in technology and, the Commission believes, is essential to the development of computer networking.

The University should give high priority to the completion of the "Student Information System." The Commission believes that it is particularly important that this work should lead to fully automated registration processes and make it possible for departments to access information on their students.

The University should revamp the administrative computing system to provide reliable support to administrative offices. The current systems available to administrative offices are frequently unreliable. Breakdowns are far too common, and service is difficult to obtain. As University offices must increasingly automate to function efficiently, reliable systems are absolutely essential. The University should also consider offering training to personnel in the use of these systems.

CONCLUSION

The Commission for the Year 2000 was responsible for studying the missions and programs of George Washington University and for recommending new programs or emphases to place the University among the leading universities of the world over the next fifteen years. Its charge was, clearly, to consider how to insure the welfare of the University as a whole.

The Commission recognized, first of all, that its recommendations must grow out of the University's historic missions and its current strengths. These provide a solid base upon which to build. This initial decision established the framework for the Commission's deliberations and recommendations.

In general, the Commission's proposals are designed to achieve that excellence to which the University aspires as it fulfills its purposes: liberal education, education for leadership, pre-professional and professional education, and research. These purposes and recommendations for how excellence may be achieved have relevance to every school and college in the University.

APPENDIX I

Activities of the Commission for the Year 2000

The Commission for the Year 2000 was charged by President Lloyd H. Elliott with studying the mission and programs of George Washington University and with recommending new program directions or emphases to place the University among the leading universities of the world over the next fifteen years.

The Commission of nine regular and two ex-officio members began its work in January 1984. As a first step, the Commission invited all members of the University community to submit information and ideas. Requests were sent to vice presidents, deans, department chairs, and to each full-time faculty member. An article appeared in the GW Report, and advertisements inviting students to submit information and recommendations were placed in the Hatchet. A similar request was mailed to all members of the Governing Board of the General Alumni Association, and a request for comment from alumni and friends of the University was published in the GW Times. The response to these requests was excellent. Over 100 faculty members sent comments which outlined problem areas or suggested program directions. Alumni and students also provided thoughtful responses.

Throughout the spring of 1984, the full Commission or subcommittees of the Commission met with individuals and groups of respondents. The Commission held its most extensive meetings with the deans, meeting twice with them as a group, and once with each dean individually in a two-hour session. In addition, a subcommittee of the Commission met with each dean from one to three more times in order to get reactions to Commission proposals and to discuss issues related to the dean's school. Subcommittees of the Commission also consulted with the chairs of all departments in Columbian College, the School of Engineering and Applied Science, and the School of Government and Business Administration.

After the Commission had prepared proposals, it met with faculty members, both singly and in groups, to get their reactions. The areas on which the faculty were asked to comment included: a statement of purpose for the University, policy research, international affairs, computers and technology, performing arts, communications, continuing education, and faculty development.

The Commission also met with administrators, student groups, and alumni, all of whom provided valuable insights. Included among the administrators were the Vice President and Treasurer, the Vice President for Development, the Vice President for Student Affairs, the Assistant Vice President for Admissions and Student Records, and professional staff from their offices.

In considering broader issues that will affect the University's development, the Commission also solicited advice from Sar Levitan, Director of the Center for Social Policy Studies, on employment trends; and from David Treadwell, a consultant with Barton-Gillette, who had conducted a marketing survey for the University on student interests and faculty attitudes. The Commission also met with Father John Whalen, Executive Director of the Consortium of Universities of the Washington Metropolitan Area, to discuss George Washington University's role and standing in the metropolitan academic community.

The Commission also sought information on how other institutions of higher education had addressed the academic questions before it. In particular, the Commission investigated other universities' approaches to policy research programs, faculty development, expansion of computing, continuing education, programs in interna-

tional affairs, and academic planning. One or more members of the Commission visited the following institutions to talk with administrators and faculty about ideas and programs: Boston University, Johns Hopkins University, Princeton University, Rochester Institute of Technology, Syracuse University, the University of Bonn (West Germany), the University of Cincinnati, the University of Maryland, and the University of Rochester.

The Commission operated as a committee of the whole for most of its deliberations. It debated all the issues and considered and revised early reports to reflect the general consensus. Subcommittees worked on specific topics and developed the recommendations.

The Commission issued its draft report on March 21, 1985 to the Board of Trustees and to the University community. It requested comment from members of the University community by April 22, 1985.

The Commission considered all the comments on the draft report in preparing the final report. Several sections of the draft were revised as a result of comments submitted by members of the University community. Its final report was presented to Dr. Elliott on May 16, 1985.

While the Commission is responsible for this report, its recommendations reflect the aspirations and ideas of a broad cross-section of this academic community. The Commission found real optimism about the future of the University, a sense of possibility that the University can achieve the stature that Dr. Elliott envisioned in his charge to the Commission. This positive attitude persuaded the Commission that the recommendations it developed could serve as the means for translating a vision of excellence into reality.

APPENDIX II

LIST OF MAJOR RECOMMENDATIONS

Building a University of Quality

RECOMMENDATION: The University should establish plans and policies that will enable it to develop into a research institution of the first rank. (p. 12)

RECOMMENDATION: The University should review the undergraduate program of general education in the near future. (p. 15)

RECOMMENDATION: The University should develop a major new program emphasis in the field of communications. (p. 18)

RECOMMENDATION: The University should take steps to strengthen the position of the performing arts within the liberal arts and to enable the performing arts to play a more important role in the life of the campus. (p. 20)

RECOMMENDATION: The University should support the three libraries in their acquisition of the technology needed to provide access to information and material appropriate to a research university of quality and to manage increasingly complex library operations. (p. 22)

RECOMMENDATION: The Division of Continuing Education and Summer Sessions should be reorganized to clarify its role and activities to members of the University community, and to prospective students and interested organizations outside the community. (p. 23)

RECOMMENDATION: The University should initiate additional steps to support faculty development in research and teaching. (p. 25)

RECOMMENDATION: The University should continue to build faculty morale and take new steps to foster a sense of academic community. (p. 25)

RECOMMENDATION: The University should provide more financial assistance in the form of loans and scholarships. To help support expanded programs, student financial aid should receive high priority in fund-raising. (p. 26)

RECOMMENDATION: The University should continue to work with student groups to provide a program of all-University activities that promote the development of a campus community. (p. 27)

RECOMMENDATION: At the earliest possible time, the University should provide modern laboratories for teaching in the natural sciences and engineering, and additional facilities to support research and teaching in these areas. (p. 28)

RECOMMENDATION: The University should develop a coordinated planning process to support its efforts for significantly greater academic quality and distinction. (p. 31)

Distinctive Aspirations

RECOMMENDATION: George Washington University should develop an international emphasis in all schools and colleges. (p. 35)

RECOMMENDATION: The University should develop the present School of Public and International Affairs to serve as the cornerstone for the University's diverse programs in international affairs. (p. 36)

RECOMMENDATION: The University should initiate steps that will result in the strengthening of its research capability in the area of government. The University should also make a major effort to offer students in every school and college a unique opportunity to relate their studies to the processes of modern government. (p. 40)

RECOMMENDATION: The University should develop a Center for the Study of Public Policy to aid in developing new research programs, particularly those which emphasize multidisciplinary activities, and to facilitate and strengthen current faculty research. (p. 42)

RECOMMENDATION: Technology must play a greater role in all the University's educational programs, research activities, and administrative operations. (p. 45)

RECOMMENDATION: The University should rationalize and substantially expand its use of computer systems for educational and administrative purposes. (p. 48)

Statement to Steering Committee

August 22, 1986

Accreditation of a college or university by the Commission on Higher Education of the Middle States Association of Colleges and Schools is accomplished through a careful self-study by the institution of itself followed by a review of that self-study and a visit to the campus by a Visiting Team representing the Commission. The task of the Visiting Team is to determine that we are able to state clearly our goals and aspirations and that we have the plans, resources, and determination to accomplish them. The chair of the Visiting Team writes the Team's report, presents it to the Commission along with our Self-Study Report, and makes a recommendation to re-affirm accreditation. The Commission considers all of this and then re-affirms our accreditation. The accreditation is of the institution as a whole and not just one part of it.

There are several self-study patterns that can be followed, but for institutions of our size and stature the one most commonly used is the "Selected Topics" approach. As Dr. Elliott has indicated, the Commission has agreed to our using the Report of the Commission on the Year 2000 as the beginning point for our self-study. Our selected topics then are the four already indicated to you - Academic Computing, General Education, Policy Studies, Research - and we our to develop specific detailed plans that will "move us toward achievement of some of the central objectives outlined in the Year 200 Report."

The formal accreditation is carried out every 10 years with a mid-term progress report prepared five years after the accreditation visit. The members of the Steering Committee who would like to examine the 1976 Self-Study and the subsequent progress report are invited to do so. I have a few copies available in my office and I believe there are a few more in the Rice Hall archives. The topics studied in 1976 were: The Growing Influence of the Government on the Affairs of the University, The Status of Undergraduate Education in Columbian College, The Impact of the Consortium on the University, and The Effect of Community-Oriented Programs on the University. There will be very little connection, I believe, between that study and the one on which we are about to embark.

There are a number of parts to a self-study document in addition to the reports of the various sub-committees. The first chapter is always an over-view of the institution which, in our case, will be prepared by Jonathan Moreno. The sub-committee reports then follow as edited by the Secretary. The self-study document concludes with a Conclusion or Summary section, also written by our Secretary. In addition, the University submits a statistical statement of enrollment information and similar data, the most recent Financial Report with Tables, and the Auditors Report with comments. There will probably be requests for other

information as well, such as a Report from the Librarian and perhaps one from the Registrar and from the Computer Center. It is possible that other school or program accreditations will be proceeding at the same time as the main self-study.

The role of the Steering Committee is to provide direction to the entire enterprise, to provide guidance to the sub-committees in their work and to the Committee's Secretary in his work, and to approve the self-study document for transmission to the University Community and to the Commission on Higher Education. We will carry out our task by meeting periodically to receive reports from the sub-committee chairs and from the Secretary as to their progress and any difficulties they are encountering.

Ed Caress

8/22/86

Timetable
Middle States Accreditation Review

1986

August 1	Appoint Steering Committee
August 22	First meeting of Steering Committee
August 25	Appoint Subcommittees
October - December	Steering Committee meets monthly

1987

January - March	Steering Committee meets monthly
April 1	First drafts in hands of Steering Committee
June 1	Final drafts approved by Steering Committee
July 1	Study sent to printer
August 15	Study sent to Team
October	Team visits GWU

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8/22/86

Middle States Subcommittee on Research

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Charles A. Garris, Professor of Engineering
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ex officio

Carl J. Lange, Vice President for Administration and Research
Michael J. Jackson, Professor of Physiology and Associate Dean of the Medical Center for Research

The Commission for the Year 2000 made broad recommendations in the area of technology, including an exhortation to the University to "rationalize and substantially expand its use of computer systems for educational and administrative purposes." This instruction was amplified in a number of subordinate recommendations.

This Subcommittee on Academic Computing is asked to confine its inquiry to the use of computers in instruction and research by faculty and students. The group should survey and assess all facets of this topic, including matters of curriculum, technology and support services.

The heart of our computing capability is the Center for Academic and Administrative Computing. However, in addition to CAAC we now have the highly sophisticated Computer Center in SEAS, as well as more modest computer labs in SGBA and SEHD, as well as significant clusters of machines in certain departments. The Subcommittee should interview the heads of those units.

The only policy governing the development of academic computing on the campus is the second Five-Year Plan (1984-88) developed by the Academic Advisory Committee to the Center for Academic and Administrative Computing. The heart of the Five-Year Plan is the commitment of resources to the development of a "distributed, university-wide computer network" utilizing the new telecommunications installation to create a "campus-wide local area network." The Subcommittee will want to review progress toward the stated goal to "bring GWU into the forefront of distributed computing capability" among American universities. The Five-Year Plan also called for the installation of one computer classroom each year. After the completion of two classrooms, the Advisory Committee agreed to a hiatus in the third year to enable the University to fund the creation of the new Computer Information and Resource Center. CIRC has an ambitious slate of user-related goals. The Subcommittee will want to visit CIRC and talk with both CIRC staff and users of the new facility.

The composition and function of the Academic Advisory Committee to CAAC should be reviewed. Perhaps it should be given a broader charge as an advisory committee on academic computing. The development of the academic support side of CAAC would continue to be in its jurisdiction, but it would see itself as having larger responsibilities under the office of the Vice President for Academic Affairs.

There are a number of facets of computer support for faculty research to be examined. Are user access priorities in CAAC set in such a way as to facilitate or hinder major faculty research projects?--Should we be developing clusters of computers around the campus that are dedicated to word processing in order to get this activity off the main frame?--The University is part of the new supercomputer network, SURANet.--We have no policy regarding the acquisition and management of large data bases. What should be our policy? What is the proper division of roles in this and other areas between CAAC and the University Library?--Will we be equipped to handle the demand for on-line searches once both the campus local area network and the on-line library catalogue projects are completed?

There are two major categories of curricular issues to be examined. The first deals with education in computers, i.e., courses and degree programs in computing. The second is the education of students in the use of computers, in general and in specific applications. Our curricula in both categories have understandably grown up like topsy in different departments and schools. An analysis of their differences and similarities in relation to diverse student needs might lead to policy recommendations to rationalize these offerings.

As part of a general review of the undergraduate curriculum, Dean Lovett asked her faculty to study the question of computer literacy among arts and sciences students. The report of that study--including results of tests of incoming students--will be available to the Subcommittee. The group has recommended a series of modules or short courses one or all of which would be required of freshmen who did not enter with the expected levels of competence.

This list of discrete topics for investigation is not meant to restrict the scope of the Subcommittee's inquiry nor to preclude more general reflections on the role of the computer, including possibly critical observations on its impact on pedagogy or on the evolution of various disciplines.

MIDDLE STATES
SUBCOMMITTEE ON GENERAL EDUCATION 8/22/86

The Commission for the Year 2000 regarded the call for "changes in the general education curriculum for undergraduates" as one of the most important issues brought to its attention by members of the faculty and the administration. The Commission called for a review of general education at GW and asked the Dean of Columbian College--acting in conjunction with the Deans of the other schools--to initiate that review.

Dean Lovett convened a Faculty Colloquium on Undergraduate Education in October 1985. The Subcommittee should make itself familiar with the presentations and discussions in the colloquium.

Over the last year, the Curriculum Committee of Columbian College has been engaged in a most thorough reconsideration of the general requirements of the College. It is important that the Subcommittee not only examine the interim report produced by the Curriculum Committee, but that they become familiar with the main lines of analysis and debate as the discussion has gone forward.

"General Education" has been asked to carry a lot of freight in American colleges and universities in the twentieth century. Few topics inspire more eloquence. None has proved more difficult to translate into curricular reality. The agenda of general education seems sometimes to be the inverted image of the failures and shortcomings of American higher education. Nonetheless, every generation and every institution must redefine its concept of the goals and practice of general education.

General education is most difficult to conceive and to actualize in a comprehensive, private, pluralistic, international University such as GW. However, if we were able to design a program of general education that was pedagogically persuasive to faculty and students and that reflected the distinctive character of our institution, we would have taken an important step toward clarifying the values of our institution to prospective students and their parents.

The Commission for the Year 2000 also identified three "Distinctive Aspirations" for the University. The Subcommittee should examine how our general education program should integrate those emphases on international programs, the study of government and technology. The challenge is to show, in pedagogical terms, how we intend to make good on our claim to be uniquely equipped to provide an international student body with the kind of education needed for responsible participation in the world community of the future.

MIDDLE STATES
SUBCOMMITTEE ON POLICY STUDIES 8/22/86

The Commission for the Year 2000 asserted that "The University clearly has the capability of developing a Center for the Study of Public Policy that could achieve national distinction." The Report of the Commission then proceeded to chronicle our assets in terms of location, history, the orientation of much of our scholarship, and a fairly large number of degree programs which deal with different policy subject areas. The conclusion of this section of the Report, however, was: "Despite these strengths, the University's true potential in the areas of public policy has not been realized."

In the opinion of the Commission, the decisive organizational step toward the realization of our potential would be the formation of a Center for the Study of Public Policy. The Report sets forth a very definite design for the proposed Center and sketches the ways in which it ought to function. The University administration has accepted this proposal in general terms, and is seeking funds to make it possible.

The Subcommittee is asked to do several things. (1) Review existing programs of instruction and research in this field with a view toward identifying neglected areas of study and indicating priority areas for additional support. (2) Continue the refinement of the definition of "policy studies" as an academic field and the explication of the role of policy studies in this University. (3) Make specific recommendations of ways to enhance collaboration between and among existing policy studies units. (4) Advise the administration on proceeding to create the Center proposed by the Commission.

MIDDLE STATES
SUBCOMMITTEE ON RESEARCH 8/22/86

The very first recommendation of the Commission for the Year 2000 under the general heading of "Building a University of Quality" was the following:

> The University should establsh plans and policies that will enable it to develop into a research institution of the first rank.

This part of the Commission's Report was an amplification of a note first sounded by President Elliott in his remarks at the conclusion of a special meeting of the Board of Trustees in October 1983. In those remarks (published under the title "Directions"), he announced it as a matter of policy that greater emphasis would be placed on research throughout the institution. To that end, he said that he was recommending an increase in University funds allocated to research and was asking the University Committee on Research to review our policies and practices in this domain of activity.

The budget allocation to the University Committee on Research has been increased substantially over the last three years. The Subcommittee will want to discuss with the University Committee on Research such things as the pattern of distribution of research awards among the several faculties, the adequacy of the present level of annual funding in relation to the number of quality proposals submitted by faculty, etc.

Acting on President Elliott's request, the University Committee on Research did a study of our practices and policies which was published in 1985 under the title, "Obstacles to Research." The Subcommittee will want to determine how we should address obstacles identified in that report.

The Faculty Senate Research Committee has been monitoring research activity and discussing various policies. The Subcommittee should review reports by that Committee, as well as any relevant documents from school committees concerning research.

The University has begun a comprehensive renovation of Corcoran hall which will include long-needed improvements in research laboratories for the Departments of Chemistry and Physics. The University is part of the new supercomputer network, SURANet. It is expected that the new Northern Virginia Center will make possible the construction of research facilities and the funding of research projects that could never be accommodated in Foggy Bottom, particularly for the School of Engineering and Applied Sciences. The Subcommittee should review the adequacy of research facilities in all fields.

As of this year, all organized research units must qualify for chartering as research centers or institutes. The Subcommittee may

wish to examine the data collected through the chartering process and evaluate the criteria used by the administration in deciding on the granting of charters.

The Subcommittee will want to make itself thoroughly familiar with the operations of the Office of Sponsored Research. The dramatic increase in support services provided by that office during the last year should be reviewed and evaluated.

The University would benefit from consideration by the Subcommittee of a number of conceptual issues.--The definition of what constitutes "research" is far from uniform throughout the University. How do we formulate policies that appropriately recognize those differences?--There is a fear in some quarters that the new emphasis on research will have detrimental consequences for teaching. How should we address that issue?--Very different things have been said regarding interdisciplinary research with respect to its importance and its vigor. How should that debate be sorted out?--Some colleagues have suggested that realistically our objective should be to become on "institution that does first-rank research" not a "research institution of the first rank." How should we define and implement our aspirations?

On the basis of its investigations and deliberations, the Subcommittee is asked to develop a plan that will guide the University in its quest to advance its status as a research institution. That plan should cover at least the following areas:

administrative organization for both sponsored and non-sponsored research efforts;

the role of deans and department chairs in providing incentives for faculty research;

funding needs for support of research, including graduate student support;

facilities for research, including the Northern Virginia Center.